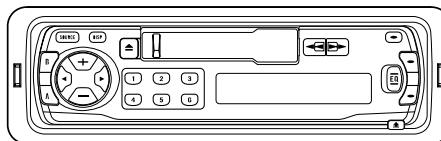


# Service Manual

**Pioneer**

KEH-P1010R/XM/EW



ORDER NO  
**CRT2607**

MULTI-CD CONTROL HIGH POWER CASSETTE PLAYER WITH RDS TUNER

# KEH-P1010R

XM/EW

## KEH-P1013R

XM/EW

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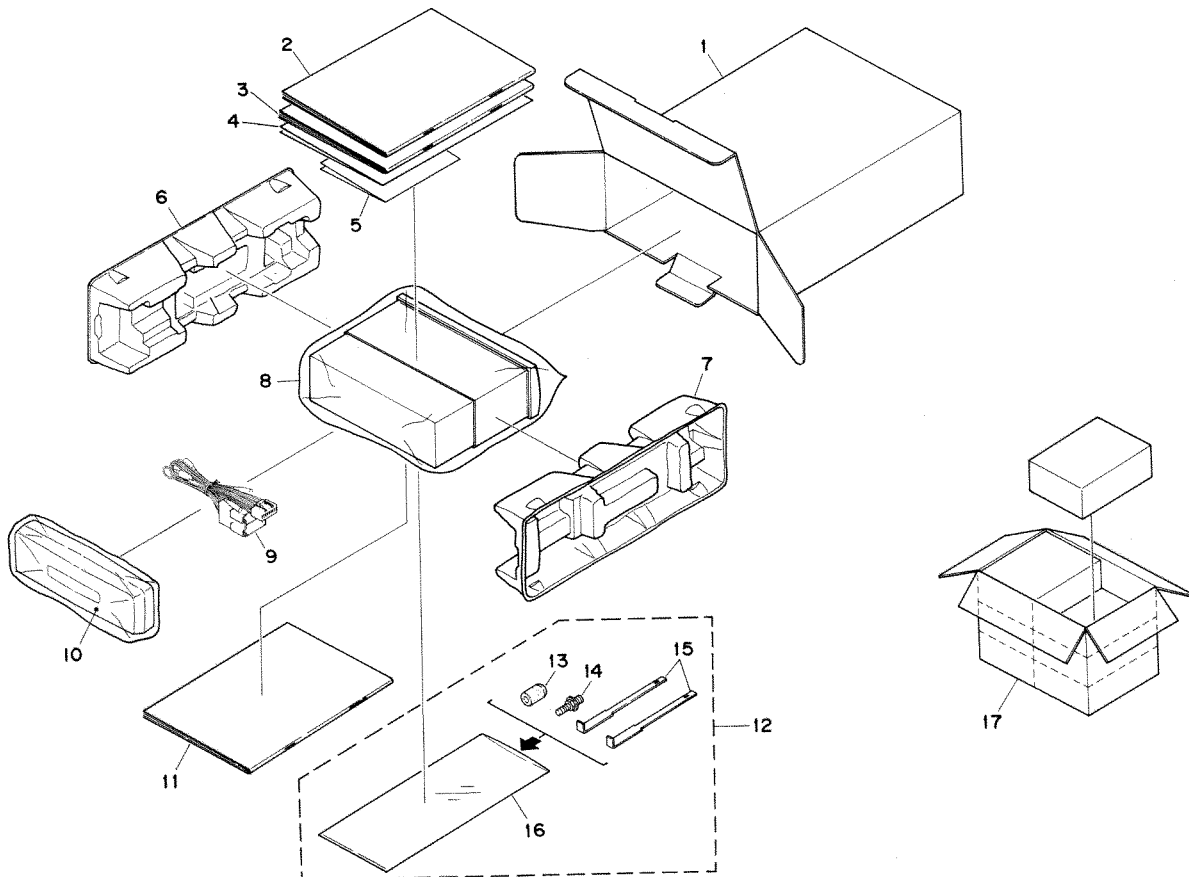
PIONEER CORPORATION 4-1, Meguro 1-Chome, Meguro-ku, Tokyo 153-8654, Japan  
PIONEER ELECTRONICS SERVICE INC. P.O.Box 1760, Long Beach, CA 90801-1760 U.S.A.  
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## 1. SAFETY INFORMATION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual. Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely; you should not risk trying to do so and refer the repair to a qualified service technician.

## 2. EXPLODED VIEWS AND PARTS LIST

### 2.1 PACKING



**NOTE**

- Parts marked by “\*” are generally unavailable because they are not in our Master Spare Parts List.

**● PACKING SECTION PARTS LIST****KEH-P1010R/XM/EW**

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
	1	Carton	CZH5577		11	Owner's Manual	CZR2942
	2	Owner's Manual	CZR2940	*	12	Accessory Assy	CEA2397
	3	Installation Manual	CZR2941		13	Bush	CNV3930
*	4	Warranty Card	CRY1157		14	Screw	CBA1002
*	5	Passport	CRY1013		15	Handle	CNC5395
	6	Protector	CHP1623		16	Polyethylene Bag	E36-615
	7	Protector	CHP1622		17	Contain Box	CZH5578
	8	Polyethylene Bag	CZE2903				
	9	Cord Assy	CZD2977				
	10	Case Assy	CXB3520				

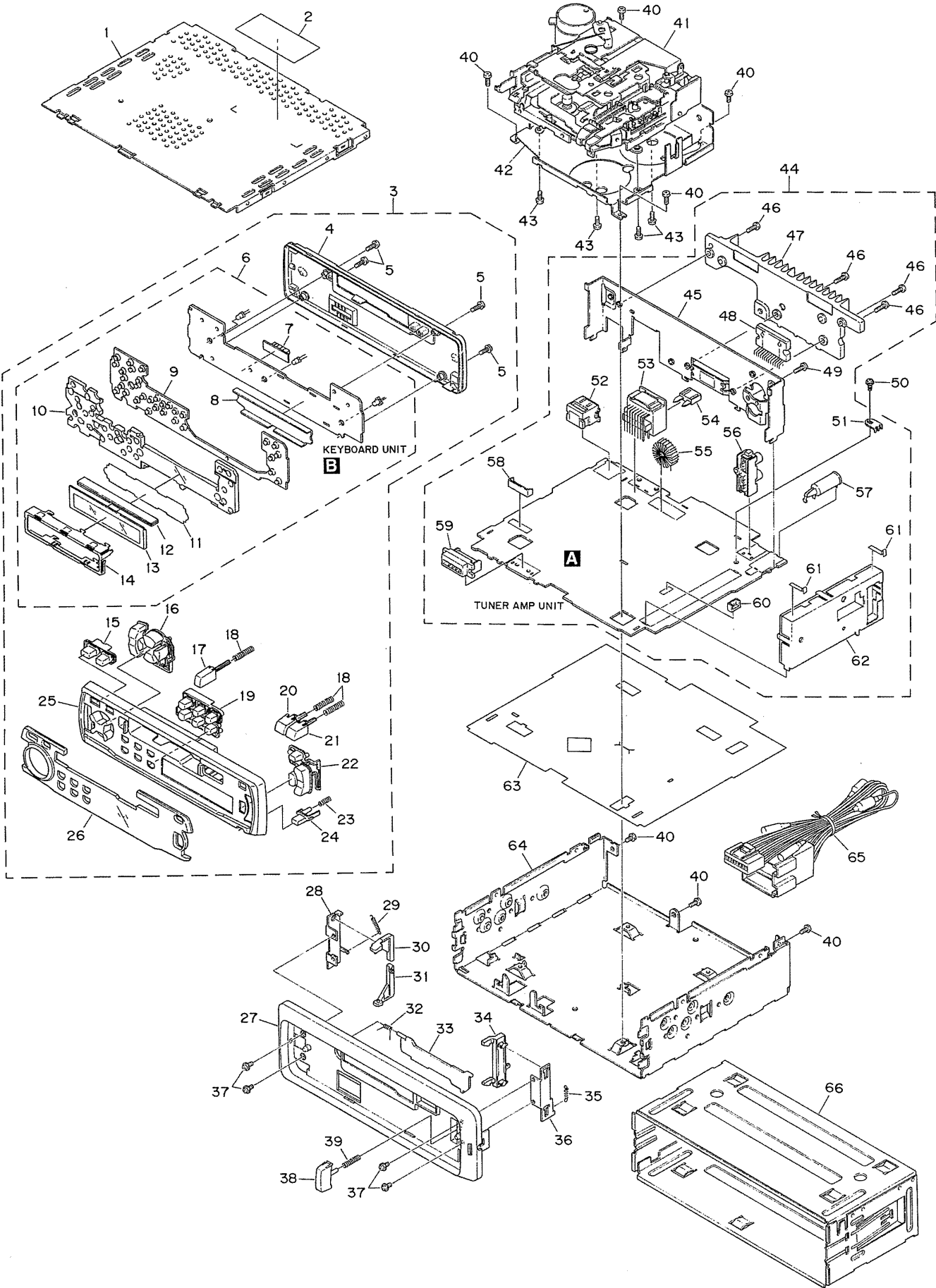
**KEH-P1013R/XM/EW**

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
	1	Carton	CZH5579		11	Owner's Manual	CZR2942
	2	Owner's Manual	CZR2940	*	12	Accessory Assy	CEA2397
	3	Installation Manual	CZR2941		13	Bush	CNV3930
*	4	Warranty Card	CRY1157		14	Screw	CBA1002
*	5	Passport	CRY1013		15	Handle	CNC5395
	6	Protector	CHP1623		16	Polyethylene Bag	E36-615
	7	Protector	CHP1622		17	Contain Box	CZH5580
	8	Polyethylene Bag	CZE2903				
	9	Cord Assy	CZD2977				
	10	Case Assy	CXB3520				

**Owner's Manual,Installation Manual**

Part No.	Language
CZR2940	English, Spanish, German
CZR2941	English, Spanish, German, French, Italian, Dutch
CZR2942	French, Italian, Dutch

2.2 EXTERIOR



## (1)EXTERIOR SECTION PARTS LIST

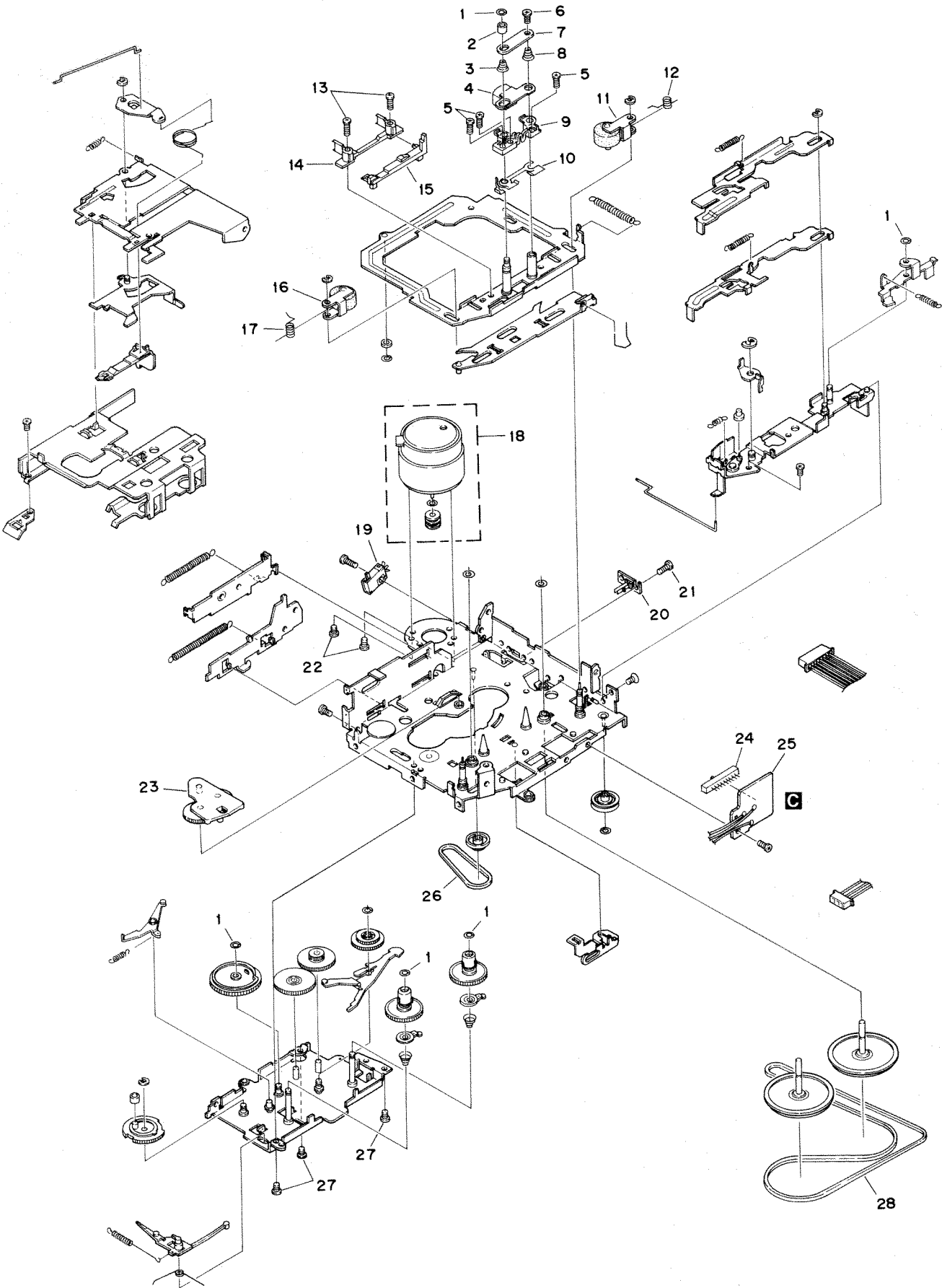
Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
*	1	Case	CZN6739	36	Bracket	CNC6791	
	2	Label	CZA5543	37	Screw	IMS20P030FZK	
	3	Grille Unit	See Contrast table(2)	38	Button	CAC4836	
	4	Cover	See Contrast table(2)	39	Spring	CBH1996	
	5	Screw	BPZ20P100FZK	40	Screw	BSZ26P060FMC	
	6	Keyboard Unit	See Contrast table(2)	41	Mechanism	CZX5514	
	7	Connector(CN900)	CKS3580	42	Bracket	CZN6738	
	8	Holder	CZN6759	43	Screw	BMZ26P040FMC	
	9	Rubber	CZN6744	44	Tuner Amp Unit	CZW5519	
	10	Lighting Conductor	CZN6758	45	Panel	CZN6741	
	11	Sheet	CZN6760	46	Screw	BSZ26P100FMC	
	12	Connector	CZN6745	47	Heat Sink	CZN6740	
	13	LCD(LCD900)	CZA5541	48	IC(IC500)	TA8277H	
	14	Holder	CZN6743	49	Screw	BPZ26P100FZK	
	15	Button (SOURCE)	CZA5535	50	Screw	ISS26P055FUC	
	16	Button (CROSS)	CZA5532	51	Terminal(G1)	CKF1059	
	17	Button (EJECT)	CZA5531	52	Connector(CN600)	CKS3408	
	18	Spring	CZB2976	53	Connector(CN200)	CZK2943	
	19	Button (1-6)	CZA5533	54	Fuse(10A)	CEK1208	
	20	Button (REW)	CZA5530	55	Choke Coil (L700)	CTH1221	
	21	Button (FF)	CZA5529	56	Pin Jack(CN700)	CKB1041	
	22	Button (EQ)	CZA5534	57	Antenna Jack(CN100)	CKX1056	
	23	Spring	CZB2977	58	Plug (CN300)	CZK2946	
	24	Button	CAC5789	59	Connector(CN800)	CKS3581	
	25	Grille	See Contrast table(2)	60	Plug (CN350)	CZK2945	
	26	Plate Assy	See Contrast table(2)	61	Plate	CZN6730	
	27	Panel	See Contrast table(2)	62	FM/AM Tuner Unit	CHX1442	
	28	Bracket	CNC6135	63	Insulator	CZN6742	
	29	Spring	CBH1834	64	Chassis	See Contrast table(2)	
	30	Arm	CNV4692	65	Cord Assy	CZD2977	
	31	Arm	CNV4693	66	Holder Unit	CXB6681	
	32	Spring	CBH2126				
	33	Door	See Contrast table(2)				
	34	Arm	CNV4728				
	35	Spring	CBH1835				

## (2)CONTRAST TABLE

KEH-P1010R/XM/EW and KEH-P1013R/XM/EW have the same construction except for the following:

Mark No.	Symbol and Description	Part No.	
		KEH-P1010R/XM/EW	KEH-P1013R/XM/EW
3	Grille Unit	CZX5512	CZX5513
4	Cover	CZN6753	CZN6754
6	Keyboard Unit	CZW5522	CZW5521
25	Grille	CZN6746	CZN6747
26	Plate Assy	CZX5507	CZX5508
27	Panel	CZN6756	CZN6757
33	Door	CAT2109	CAT2108
64	Chassis	CZN6736	CZN6737

2.3 CASSETTE MECHANISM



**NOTE**

- For the cassette mechanism, only the parts listed here are available as spare parts.  
The others (not shown in the list) cannot be supplied.

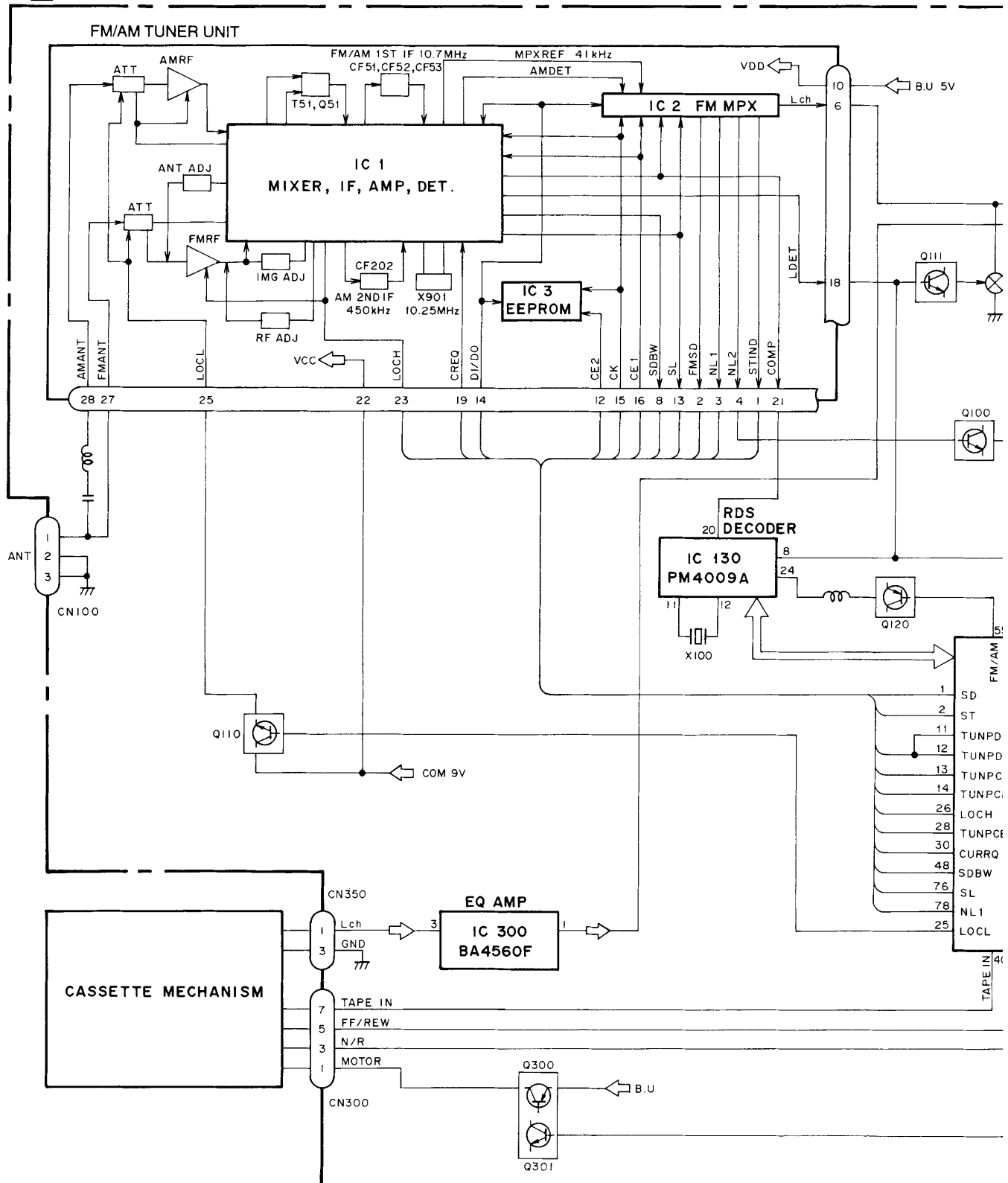
**● CASSETTE MECHANISM SECTION PARTS LIST**

Mark	No.	Description	Part No.
	1	Washer	1-0036-5024
	2	Roller	1-0363-3018
	3	Spring	1-0036-4011
	4	Head	1-0036-7123
	5	Screw	1-0138-5002
	6	Screw	2-1012-0040-C2
	7	Plate	1-0036-1015
	8	Spring	1-0036-4010
	9	Arm	10138-2005-3
	10	Shim	1-0138-1006
	11	Pinch Arm (F) Assy	1-0036-6014
	12	Spring	1-0363-4003
	13	Screw	2-1032-0070-C2
	14	Tape Guide	1-0038-2018
	15	Link	1-0363-2006
	16	Pinch Arm (R) Assy	1-0036-6013
	17	Spring	1-0363-4004
	18	Motor Assy (M1)	X-0363-7006
	19	Power Switch (S1)	1-0363-7005
	20	Mute Switch (S2)	1-0363-7001
	21	Screw	213317040-C2
	22	Screw	2-1032-0025-C2
	23	Arm Assy	X-0363-6003
	24	Slide Switch (S3)	1-0363-7002
	25	SW PWB	1-0363-7008
	26	Belt	1-0036-5018
	27	Screw	213820030-C2
	28	Belt	1-0036-5004

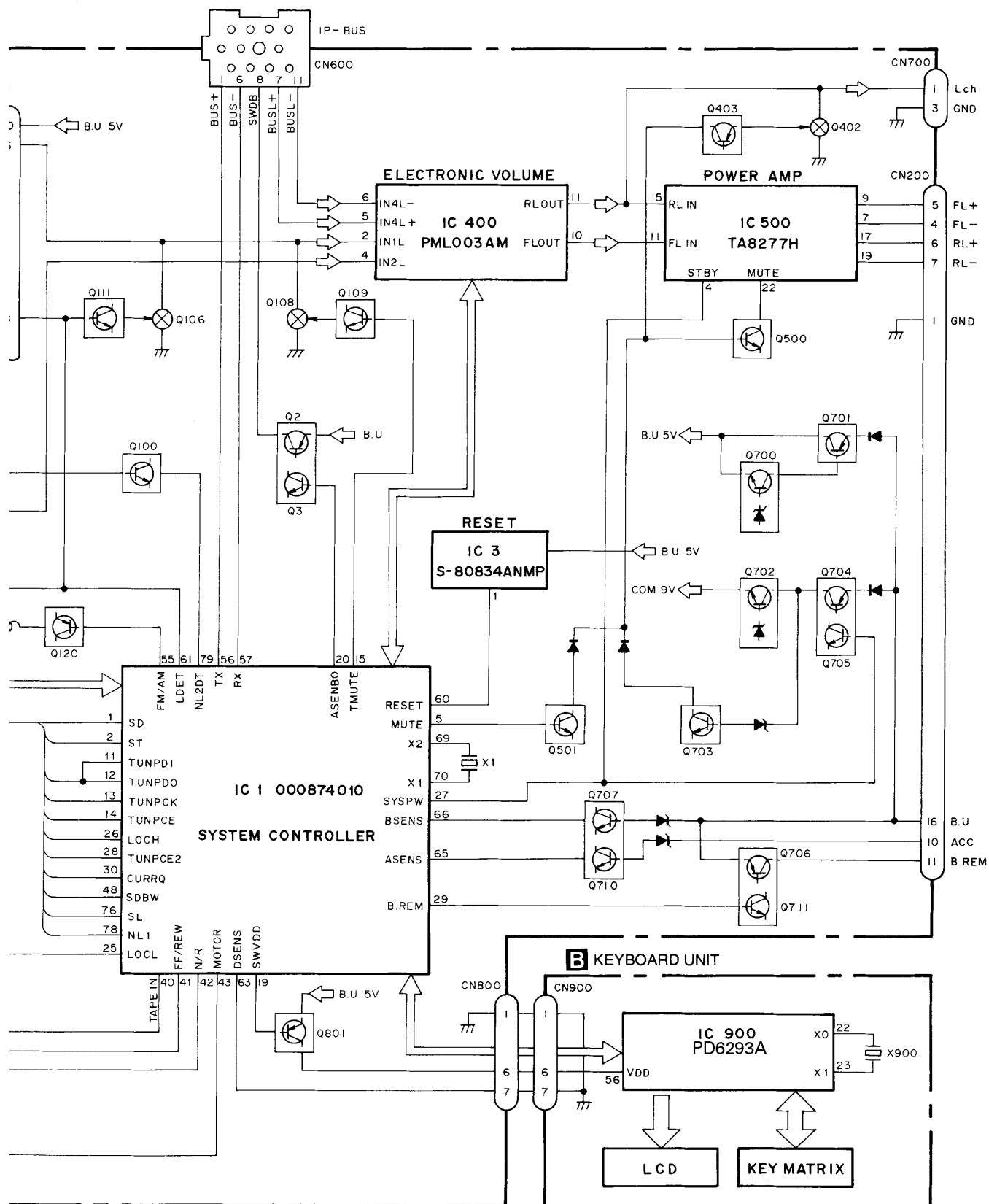
### 3. BLOCK DIAGRAM AND SCHEMATIC DIAGRAM

#### 3.1 BLOCK DIAGRAM

##### A TUNER AMP UNIT







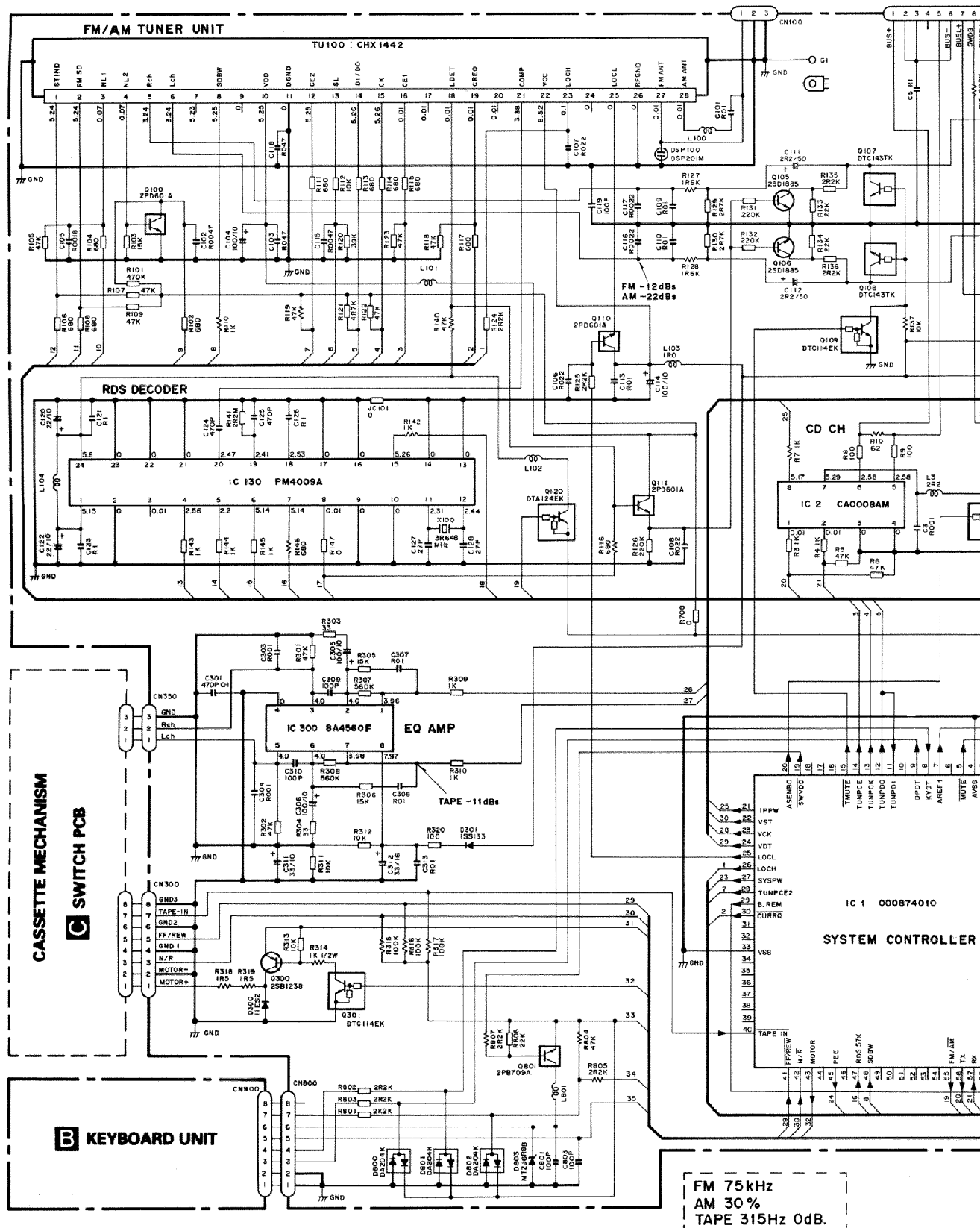
A

B

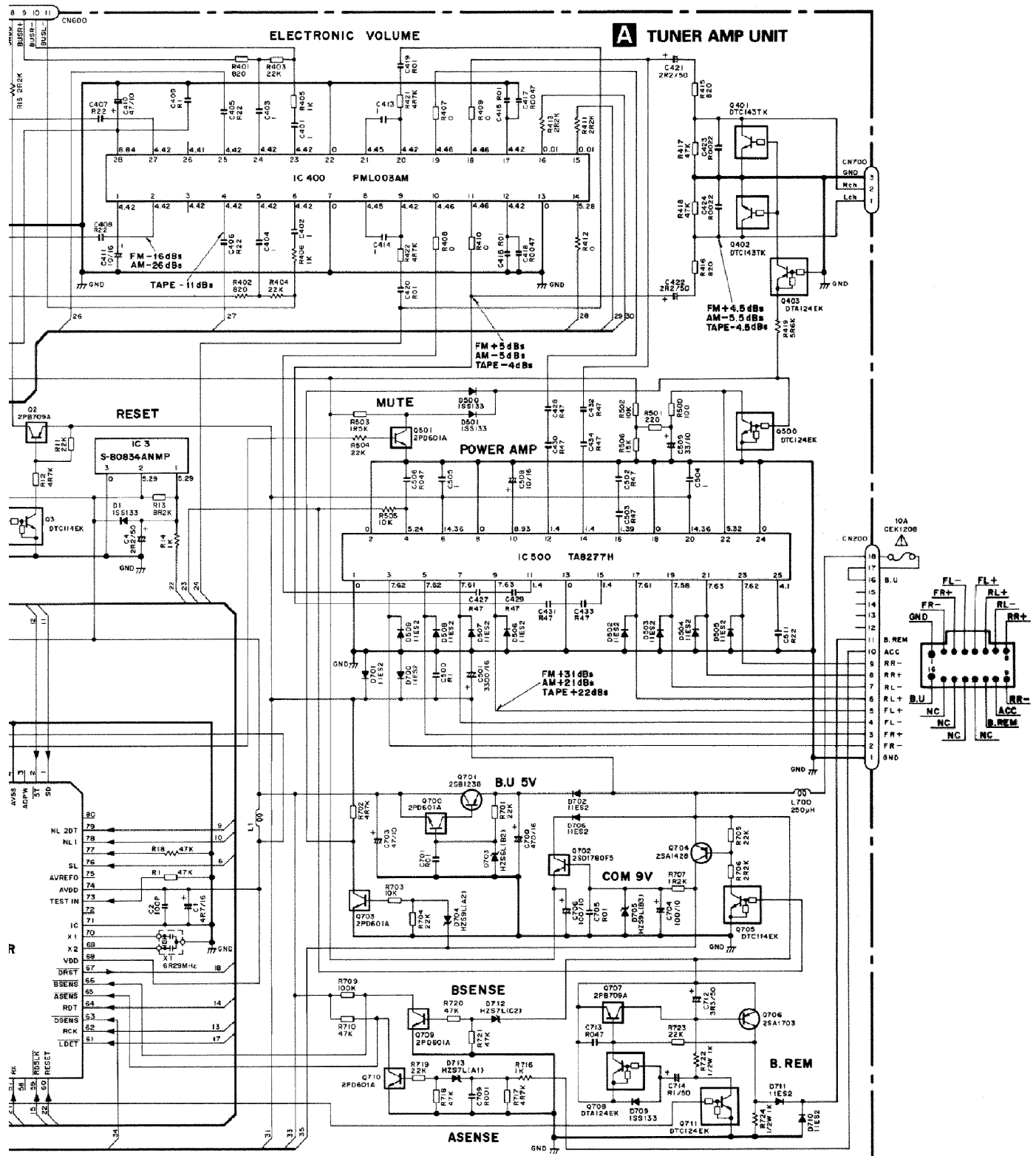
C

D

# 3.2 OVERALL CONNECTION DIAGRAM



FM 75kHz  
AM 30%  
TAPE 315Hz 0dB.



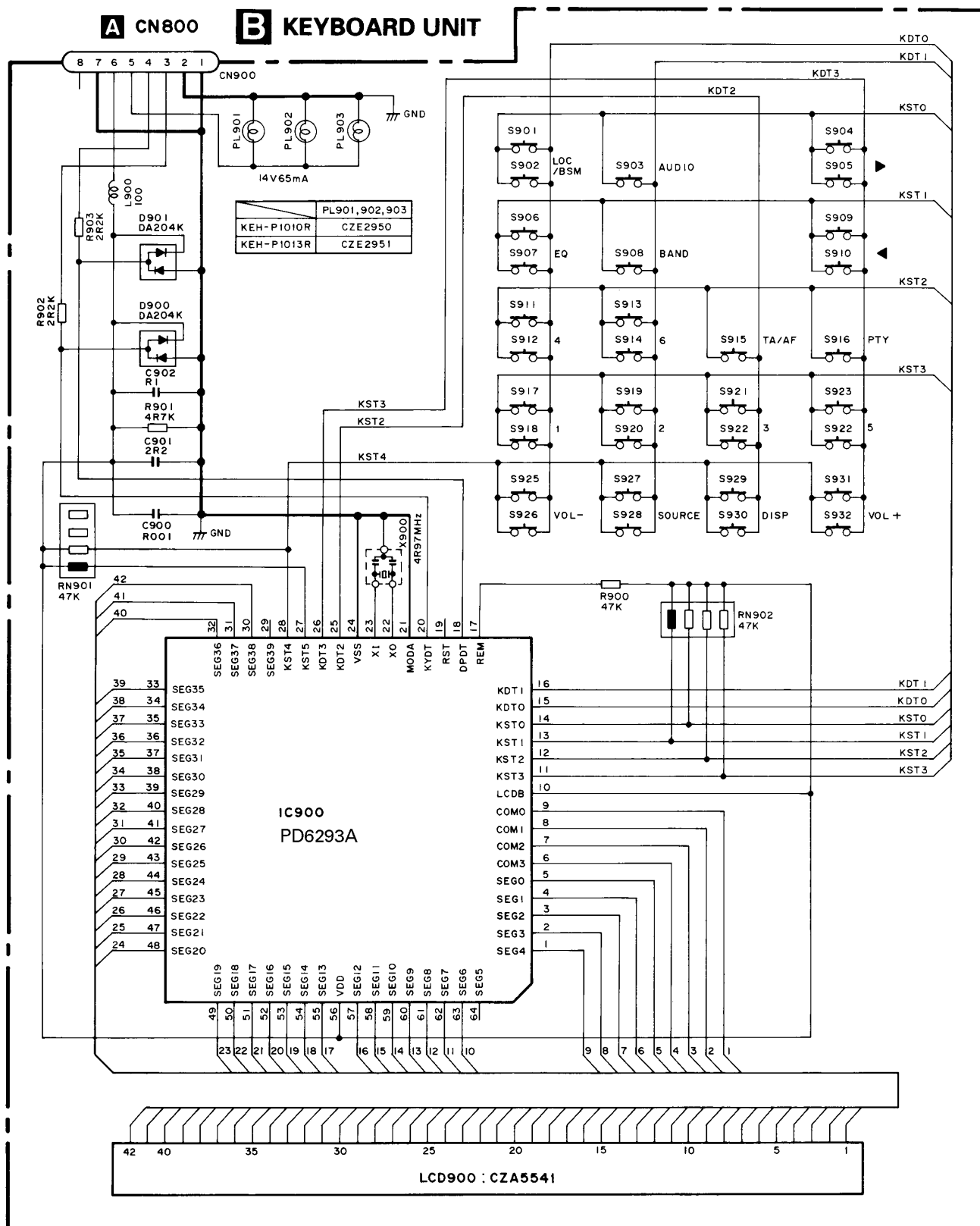
## NOTE:

- Symbol indicates a resistor.  
No differentiation is made between chip resistors and discrete resistors.
- ⊢ Symbol indicates a capacitor.  
No differentiation is made between chip capacitors and discrete capacitors.

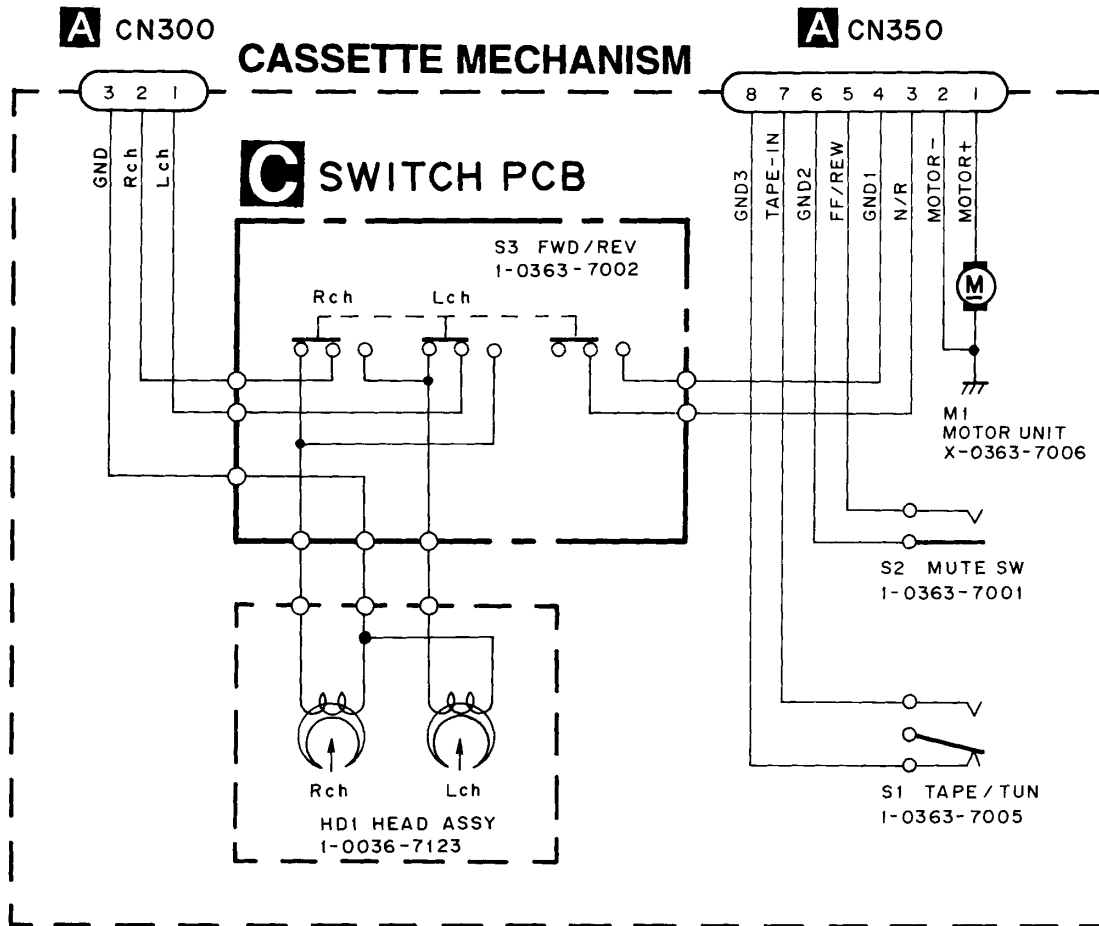
Decimal points for resistor and capacitor fixed values are expressed as:  
2.2→2R2  
0.022→R022

The  $\Delta$  mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.

## 3.3 KEYBOARD UNIT



### 3.4 CASSETTE MECHANISM



#### SWITCHES :

S1 : TAPE/TUN SWITCH.....TAPE/TUN  
 S2 : MUTE SWITCH .....ON-OFF  
 S3 : FWD/REV SWITCH.....FWD-REV

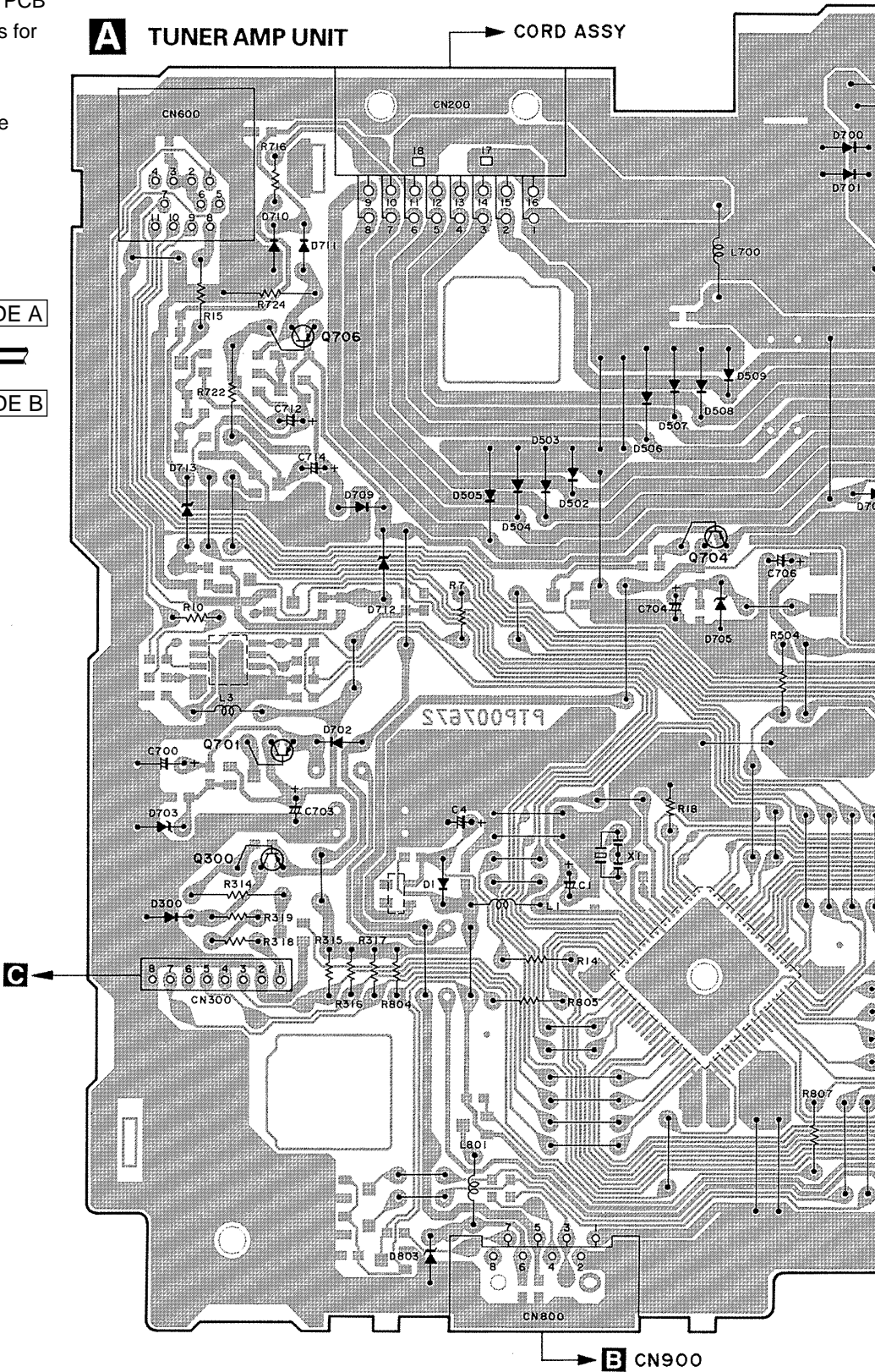
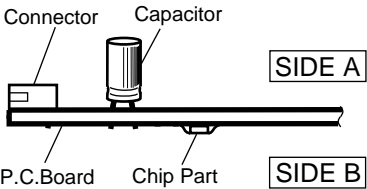
The underlined indicates the switch position.

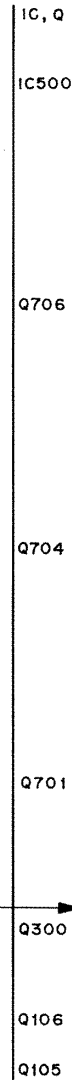
4. PCB CONNECTION DIAGRAM

4.1 TUNER AMP UNIT

NOTE FOR PCB DIAGRAMS

1. The parts mounted on this PCB include all necessary parts for several destination. For further information for respective destinations, be sure to check with the schematic diagram.

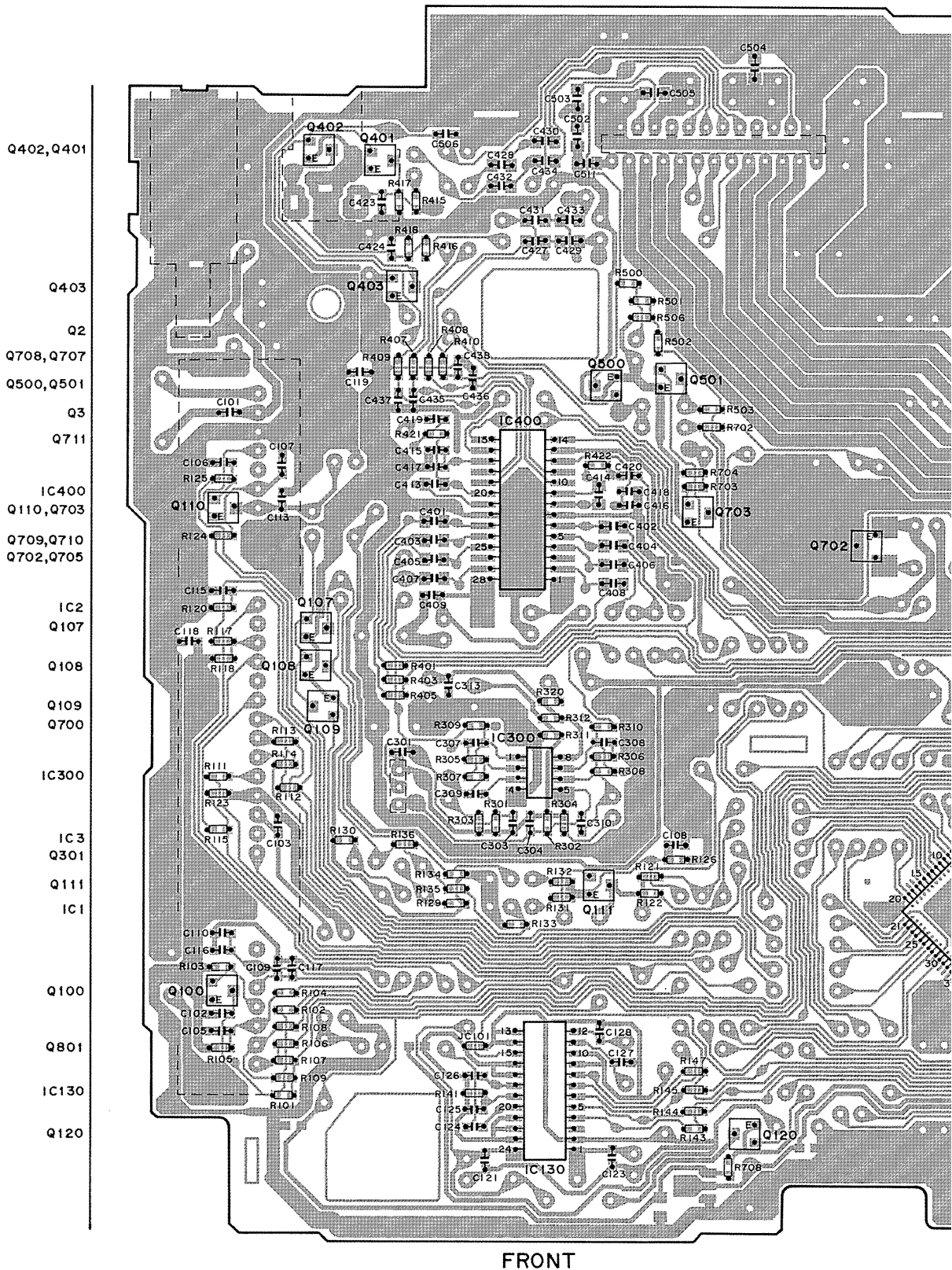




**A** 15



**A** TUNER AMP UNIT

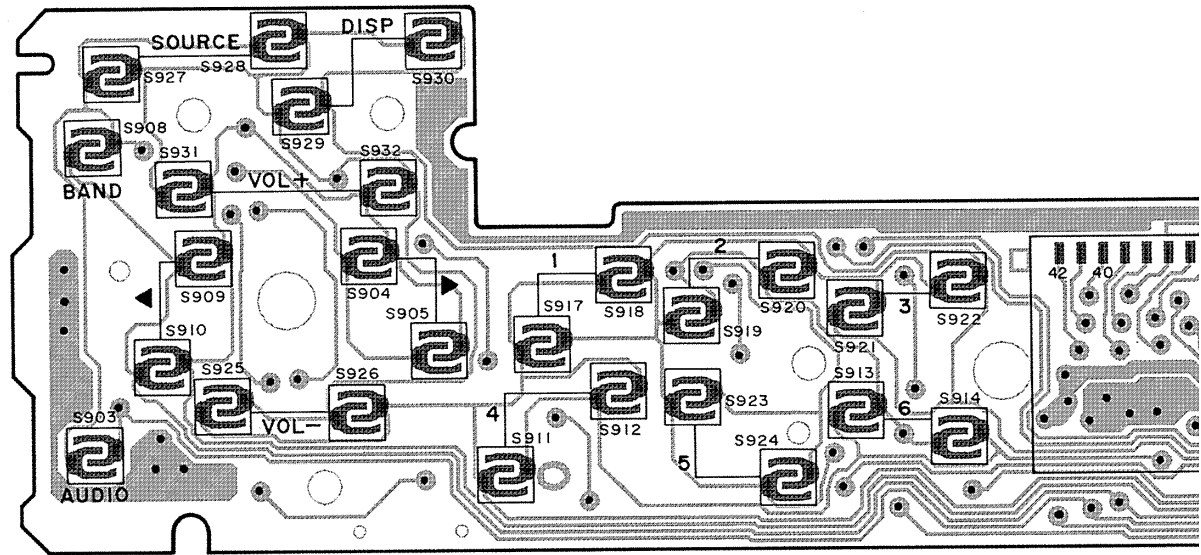




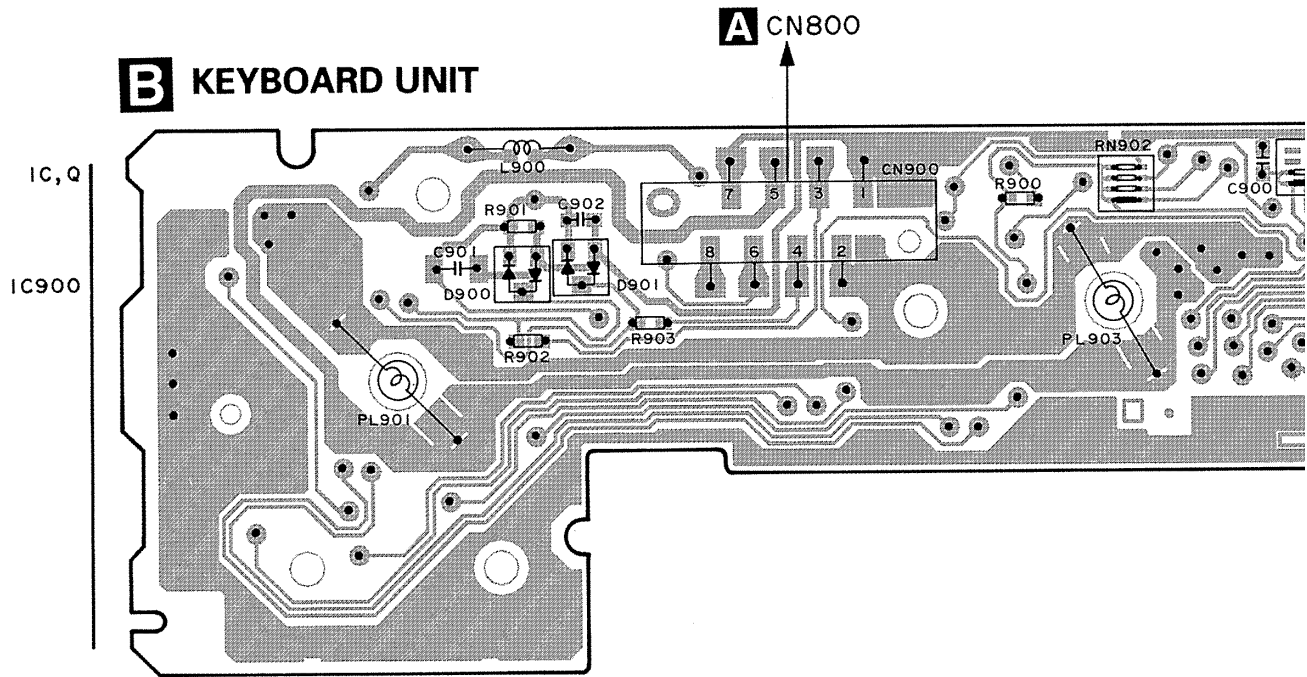


4.2 KEYBOARD UNIT

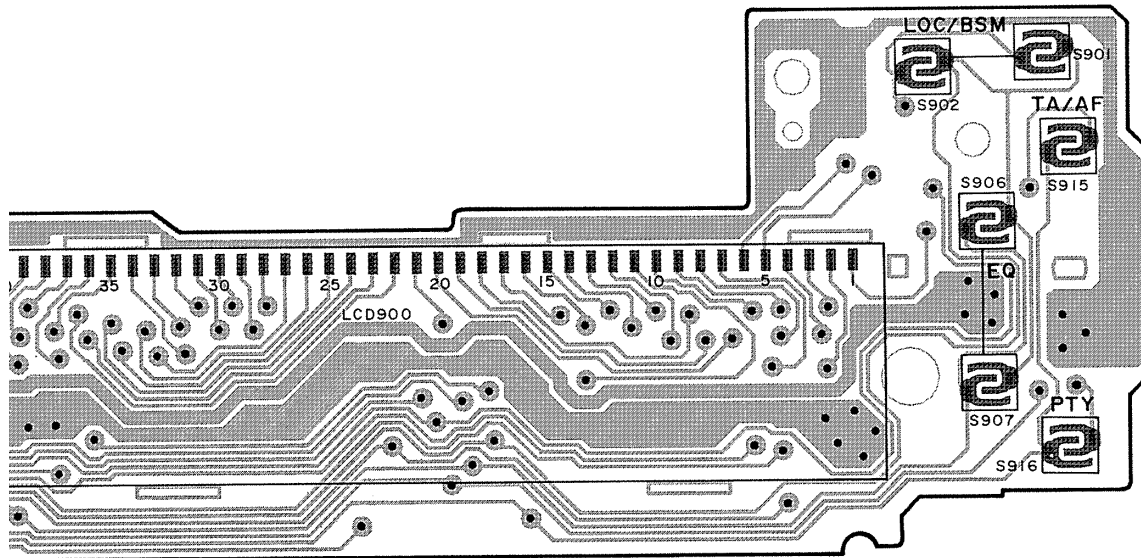
B KEYBOARD UNIT



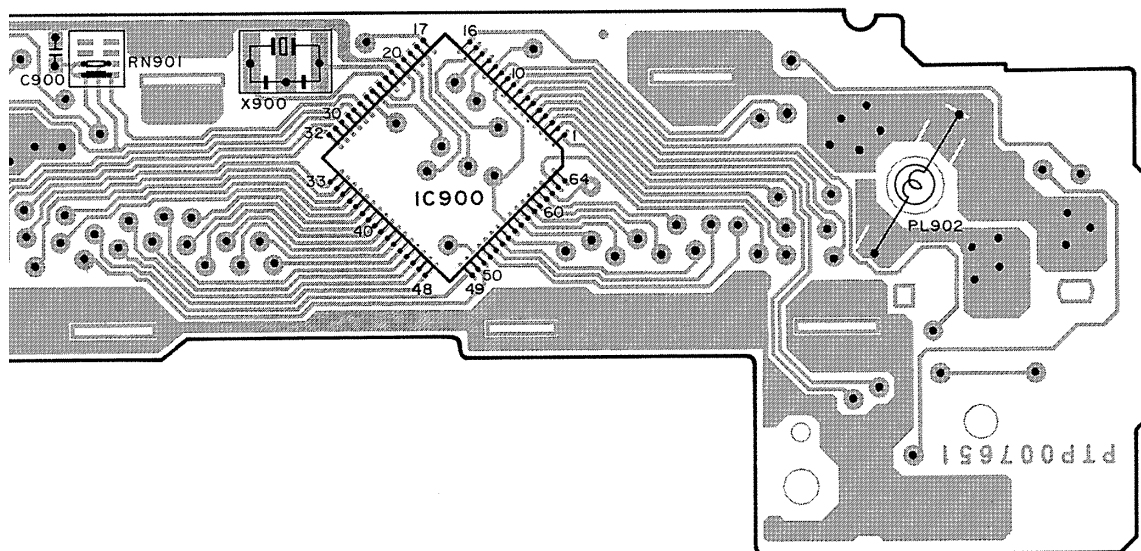
B KEYBOARD UNIT



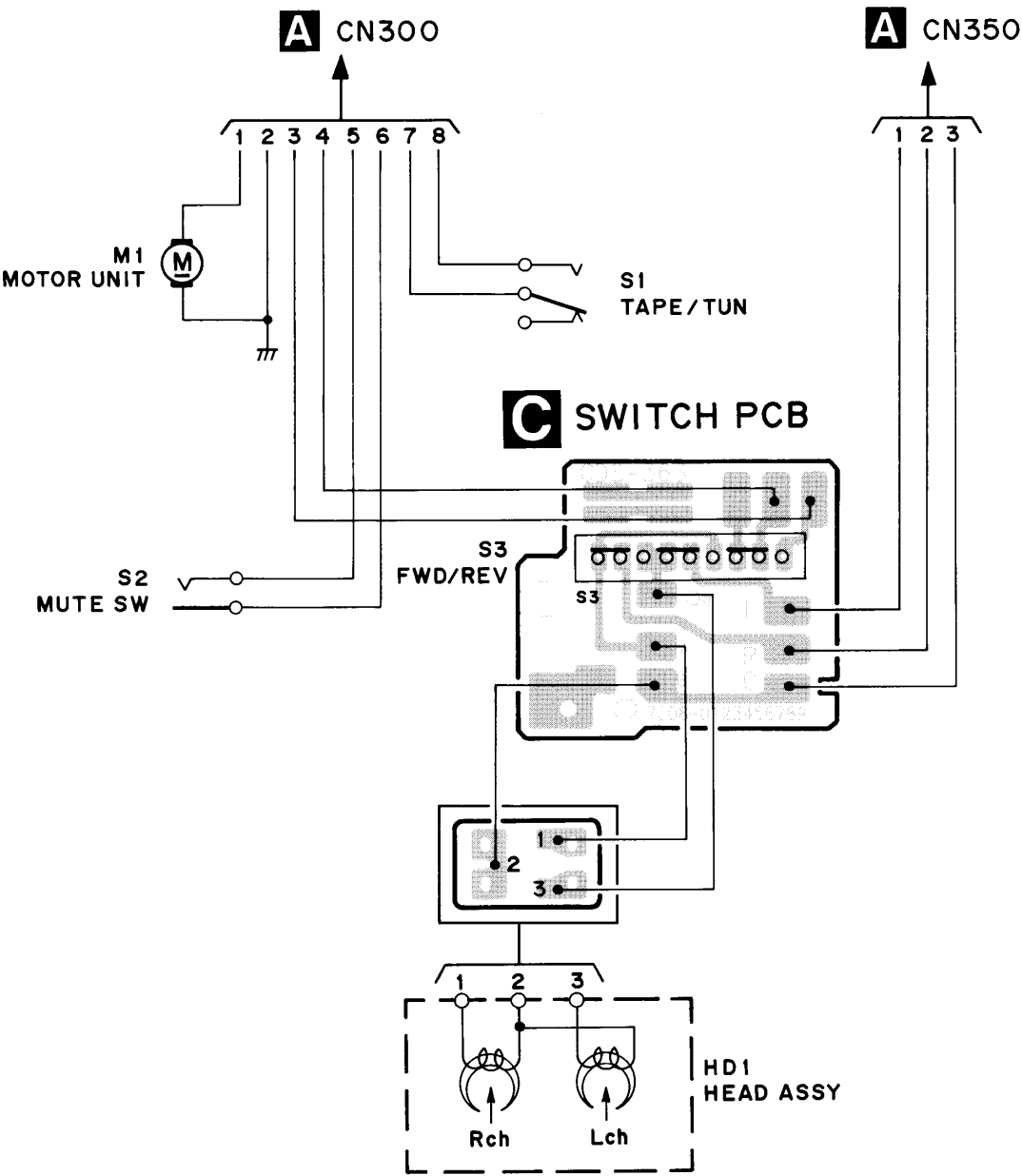
SIDE A



SIDE B



4.3 CASSETTE MECHANISM



## 5. ELECTRICAL PARTS LIST

### NOTES:

- Parts whose parts numbers are omitted are subject to being not supplied.
- The part numbers shown below indicate chip components.

#### Chip Resistor

RS1/○○○○○J,RS1/○○S○○○J

#### Chip Capacitor (except for CQS.....)

CKS....., CCS....., CSZS.....

====Circuit Symbol and No.====Part Name	Part No.	====Circuit Symbol and No.====Part Name	Part No.
<b>A</b> Unit Number :CZW5519		Q 710 Transistor	2PD601A
Unit Name :Tuner Amp Unit		Q 711 Transistor	DTC124EK
		Q 801 Transistor	2PB709A
		D 1 Diode	1SS133
		D 300 Diode	11ES2
		D 301 Diode	1SS133
		D 500 Diode	1SS133
		D 501 Diode	1SS133
		D 502 Diode	11ES2
		D 503 Diode	11ES2
		D 504 Diode	11ES2
		D 505 Diode	11ES2
		D 506 Diode	11ES2
		D 507 Diode	11ES2
		D 508 Diode	11ES2
		D 509 Diode	11ES2
		D 700 Diode	11ES2
		D 701 Diode	11ES2
		D 702 Diode	11ES2
		D 703 Diode	HZS6L(B2)
		D 704 Diode	HZS9L(A2)
		D 705 Diode	HZS9L(B3)
		D 706 Diode	11ES2
		D 709 Diode	1SS133
		D 710 Diode	11ES2
		D 711 Diode	11ES2
		D 712 Diode	HZS7L(C2)
		D 713 Diode	HZS7L(A1)
		D 800 Diode	DA204K
		D 801 Diode	DA204K
		D 802 Diode	DA204K
		D 803 Diode	MTZJ6R8(B)
		L 1 Ferri-Inductor	LAU2R2K
		L 3 Ferri-Inductor	LAU2R2K
		L 100 Ferri-Inductor	LAU4R7K
		L 101 Ferri-Inductor	LAU1R0M
		L 102 Inductor	LAU100K
		L 103 Ferri-Inductor	LAU1R0M
		L 104 Ferri-Inductor	LAU101K
		L 700 Choke Coil 250uH	CTH1221
IC 1 IC	000874010		
IC 2 IC	CA0008AM		
IC 3 IC	S-80834ANMP		
IC 130 IC	PM4009A		
IC 300 IC	BA4560F		
IC 400 IC	PML003AM		
IC 500 IC	TA8277H		
Q 2 Transistor	2PB709A		
Q 3 Transistor	DTC114EK		
Q 100 Transistor	2PD601A		
Q 105 Transistor	2SD1865		
Q 106 Transistor	2SD1865		
Q 107 Transistor	DTC143TK		
Q 108 Transistor	DTC143TK		
Q 109 Transistor	DTC114EK		
Q 110 Transistor	2PD601A		
Q 111 Transistor	2PD601A		
Q 120 Transistor	DTA124EK		
Q 300 Transistor	2SB1238		
Q 301 Transistor	DTC114EK		
Q 401 Transistor	DTC143TK		
Q 402 Transistor	DTC143TK		
Q 403 Transistor	DTA124EK		
Q 500 Transistor	DTC124EK		
Q 501 Transistor	2PD601A		
Q 700 Transistor	2PD601A		
Q 701 Transistor	2SB1238		
Q 702 Transistor	2SD1760F5		
Q 703 Transistor	2PD601A		
Q 704 Transistor	2SA1428		
Q 705 Transistor	DTC114EK		
Q 706 Transistor	2SA1703		
Q 707 Transistor	2PB709A		
Q 708 Transistor	DTA124EK		
Q 709 Transistor	2PD601A		

# KEH-P1010R,P1013R

====Circuit Symbol and No.==Part Name			Part No.	====Circuit Symbol and No.==Part Name			Part No.
L	801	Inductor	LAU100K	R	126		RS1/16S224J
G	1	Terminal	CKF1059	R	127		RD1/4PU162J
X	1	Ceramic Resonator 6.29MHz	CSS1310	R	128		RD1/4PU162J
X	100	Crystal Resonator 3.648MHz	CSS1447	R	129		RS1/16S272J
JC	101		RS1/16S0R0J	R	130		RS1/16S272J
TU	100	FM/AM Tuner Unit	CHX1442	R	131		RS1/16S224J
DSP	100	Surge Protector	DSP-200-A11F	R	132		RS1/16S224J
RESISTORS				R	133		RS1/16S223J
				R	134		RS1/16S223J
				R	135		RS1/16S222J
R	1		RS1/16S473J				
R	3		RS1/16S102J	R	136		RS1/16S222J
R	4		RS1/16S102J	R	137		RD1/4PU103J
R	5		RS1/16S473J	R	140		RD1/4PU473J
R	6		RS1/16S473J	R	141		RS1/16S225J
				R	142		RD1/4PU102J
R	7		RD1/4PU102J				
R	8		RS1/16S101J	R	143		RS1/16S102J
R	9		RS1/16S101J	R	144		RS1/16S102J
R	10		RD1/4PU620J	R	145		RS1/16S102J
R	11		RS1/16S223J	R	146		RD1/4PU681J
				R	147		RS1/16S0R0J
R	12		RS1/16S472J				
R	13		RS1/16S822J	R	301		RS1/16S473J
R	14		RD1/4PU102J	R	302		RS1/16S473J
R	15		RD1/4PU222J	R	303		RS1/16S330J
R	18		RD1/4PU473J	R	304		RS1/16S330J
				R	305		RS1/16S153J
R	101		RS1/16S474J				
R	102		RS1/16S681J	R	306		RS1/16S153J
R	103		RS1/16S153J	R	307		RS1/16S564J
R	104		RS1/16S681J	R	308		RS1/16S564J
R	105		RS1/16S473J	R	309		RS1/16S102J
				R	310		RS1/16S102J
R	106		RS1/16S681J				
R	107		RS1/16S473J	R	311		RS1/16S103J
R	108		RS1/16S681J	R	312		RS1/16S103J
R	109		RS1/16S473J	R	313		RS1/16S103J
R	110		RD1/4PU102J	R	314		RD1/2PM102J
				R	315		RD1/4PU104J
R	111		RS1/16S681J				
R	112		RS1/16S103J	R	316		RD1/4PU104J
R	113		RS1/16S681J	R	317		RD1/4PU104J
R	114		RS1/16S681J	R	318		RD1/4PU1R5J
R	115		RS1/16S681J	R	319		RD1/4PU1R5J
				R	320		RS1/16S101J
R	116		RD1/4PU681J				
R	117		RS1/16S681J	R	401		RS1/16S821J
R	118		RS1/16S473J	R	402		RD1/4PU821J
R	119		RD1/4PU473J	R	403		RS1/16S223J
R	120		RS1/16S393J	R	404		RD1/4PU223J
				R	405		RS1/16S102J
R	121		RS1/16S472J				
R	122		RS1/16S473J	R	406		RD1/4PU102J
R	123		RS1/16S473J	R	407		RS1/16S0R0J
R	124		RS1/16S222J	R	408		RS1/16S0R0J
R	125		RS1/16S222J	R	409		RS1/16S0R0J
				R	410		RS1/16S0R0J

====Circuit Symbol and No.====Part Name	Part No.	====Circuit Symbol and No.====Part Name	Part No.
R 411	RD1/4PU222J	C 101	CKSRYB103K50
R 413	RD1/4PU222J	C 102	CKSRYB472K50
R 415	RS1/16S821J	C 103	CKSRYB473K25
R 416	RS1/16S821J	C 104	CEAL101M10
R 417	RS1/16S473J	C 105	CKSRYB182K50
R 418	RS1/16S473J	C 106	CKSRYB223K25
R 419	RD1/4PU562J	C 107	CKSRYB223K25
R 421	RS1/16S472J	C 108	CKSRYB223K25
R 422	RS1/16S472J	C 109	CKSRYB103K50
R 500	RS1/16S101J	C 110	CKSRYB103K50
R 501	RS1/16S221J	C 111	CEAL2R2M50
R 502	RS1/16S103J	C 112	CEAL2R2M50
R 503	RS1/16S152J	C 113	CKSRYB103K50
R 504	RD1/4PU223J	C 114	CEAL101M10
R 505	RD1/4PU103J	C 115	CKSRYB472K50
R 506	RS1/16S153J	C 116	CKSRYB222K50
R 701	RS1/16S223J	C 117	CKSRYB222K50
R 702	RS1/16S472J	C 118	CKSRYB473K25
R 703	RS1/16S103J	C 119	CCSRCH101J50
R 704	RS1/16S223J	C 120	CEAL220M10
R 705	RS1/16S223J	C 121	CKSRYB104K25
R 706	RS1/16S102J	C 122	CEAL220M10
R 707	RS1/16S122J	C 123	CKSRYB104K25
R 708	RS1/16S0R0J	C 124	CCSRCH471J50
R 709	RS1/16S104J	C 125	CCSRCH471J50
R 710	RS1/16S473J	C 126	CKSRYB104K25
R 716	RD1/4PU102J	C 127	CCSRCH270J50
R 717	RS1/16S472J	C 128	CCSRCH270J50
R 718	RS1/16S473J	C 301	CCSRCH471J50
R 719	RS1/16S223J	C 303	CKSRYB102K50
R 720	RS1/16S473J	C 304	CKSRYB102K50
R 721	RS1/16S473J	C 305	CEAL101M10
R 722	RD1/2PM102J	C 306	CEAL101M10
R 723	RS1/16S223J	C 307	CKSRYB103K50
R 724	RD1/2PM102J	C 308	CKSRYB103K50
R 801	RS1/16S222J	C 309	CCSRCH101J50
R 802	RS1/16S222J	C 310	CCSRCH101J50
R 803	RS1/16S222J	C 311	CEAL330M10
R 804	RD1/4PU473J	C 312	CEAL100M16
R 805	RD1/4PU222J	C 313	CKSRYB103K50
R 806	RS1/16S223J	C 401	CKSRYB105K10
R 807	RD1/4PU222J	C 402	CKSRYB105K10
		C 403	CKSRYB105K10
		C 404	CKSRYB105K10
		C 405	CKSRYB224K10
CAPACITORS			
C 1	CEAL4R7M16		
C 2	CCSRCH101J50	C 406	CKSRYB224K10
C 3	CKSRYB102K50	C 407	CKSRYB224K10
C 4	CEAL2R2M50	C 408	CKSRYB224K10
C 5	CKSRYB104K25	C 409	CKSRYB104K25
		C 410	CEAL470M10

# KEH-P1010R,P1013R

====Circuit Symbol and No.====Part Name

Part No.

====Circuit Symbol and No.====Part Name

Part No.

C 411 CEAL100M16  
C 413 CKSRYB105K10  
C 414 CKSRYB105K10  
C 415 CKSRYB103K50  
C 416 CKSRYB103K50

C 417 CKSRYB472K50  
C 418 CKSRYB472K50  
C 419 CKSRYB103K50  
C 420 CKSRYB103K50  
C 421 CEAL2R2M50

C 422 CEAL2R2M50  
C 423 CKSRYB222K50  
C 424 CKSRYB222K50  
C 427 CKSRYB474K10  
C 428 CKSRYB474K10

C 429 CKSRYB474K10  
C 430 CKSRYB474K10  
C 431 CKSRYB474K10  
C 432 CKSRYB474K10  
C 433 CKSRYB474K10

C 434 CKSRYB474K10  
C 500 CKSRYB104K25  
C 501 3300μF/16V CCH1018  
C 502 CKSRYB474K10  
C 503 CKSRYB474K10

C 504 CKSRYB105K10  
C 505 CKSRYB105K10  
C 506 CKSRYB473K25  
C 508 CEAL100M16  
C 509 CEAL330M10

C 511 CKSRYB224K10  
C 700 CEA471M16  
C 701 CKSRYB103K50  
C 703 CEAL470M10  
C 704 CEAL101M10

C 705 CKSRYB103K50  
C 706 CEAL101M10  
C 709 CKSRYB102K50  
C 712 CEAL3R3M50  
C 713 CKSRYB473K25

C 714 CEALR10M50  
C 801 CCSRCH101J50  
C 803 CCSRCH101J50

**B** Unit Number :CZW5522(KEH-P1010R/XM/EW)  
:CZW5521(KEH-P1013R/XM/EW)  
Unit Name :Keyboard Unit

## MISCELLANEOUS

IC 900 IC PD6293A  
D 900 Diode DA204K  
D 901 Diode DA204K  
L 900 Ferri-Inductor LAU101K  
X 900 Ceramic Resonator 4.97MHz CSS1422  
  
PL 901 Lamp 14V 65mA See Contrast table  
PL 902 Lamp 14V 65mA See Contrast table  
PL 903 Lamp 14V 65mA See Contrast table  
RN 901 RAB4C473J  
RN 902 RAB4C473J

LCD900 LCD CZA5541

## RESISTORS

R 900 RS1/16S473J  
R 901 RS1/16S472J  
R 902 RS1/16S222J  
R 903 RS1/16S222J

## CAPACITORS

C 900 CKSRYB102K50  
C 901 CKSQYB225K10  
C 902 CKSRYB104K25

**C** Unit Number :  
Unit Name :Switch PCB

S 3 Slide Switch(FWD/REV) 1-0363-7002

## Miscellaneous Parts List

S 1 Switch(TAPE/TUN) 1-0363-7005  
S 2 Switch(Mute) 1-0363-7001  
M 1 Motor Assy X-0363-7006  
HD 1 Head 1-0036-7123

## CONTRAST TABLE of KEYBOARD UNIT

KEH-P1010R/XM/EW and KEH-P1013R/XM/EW have the same construction except for the following:

Symbol and Description	Part No.	
	KEH-P1010R/XM/EW	KEH-P1013R/XM/EW
PL 901	CZE2950	CZE2951
PL 902	CZE2950	CZE2951
PL 903	CZE2950	CZE2951



## 6. ADJUSTMENT

There is no information to be shown in this chapter.

## 7. GENERAL INFORMATION

### 7.1 DIAGNOSIS

#### 7.1.1 DISASSEMBLY

##### ● Removing the Upper Case(not shown)

##### 1.Remove the Upper Case.

##### ● Removing the Cassette Mechanism Module(Fig.1)

- ① Remove the four screws and then remove the Cassette Mechanism.

##### ● Remove the Grille Assy(Fig.1)

- ② Remove the two screws.

Disconnect the two stoppers and then remove the Grille Assy.

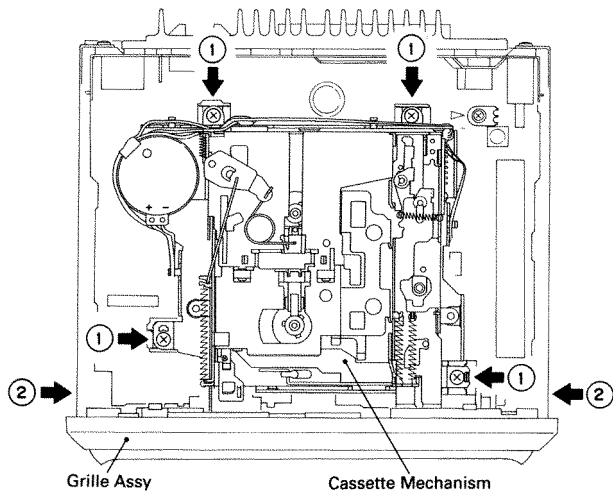


Fig. 1

##### ● Removing the Tuner Amp Unit(Fig.2)

- ① Remove the three screws.
- ② Remove the screw.
- ③ Unbend the five claws and then remove the Tuner Amp Unit.

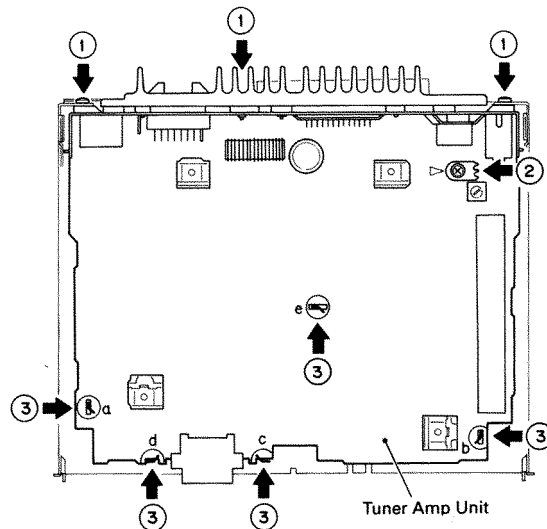
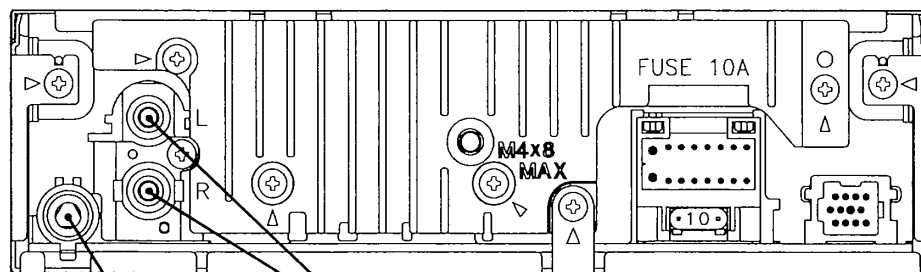
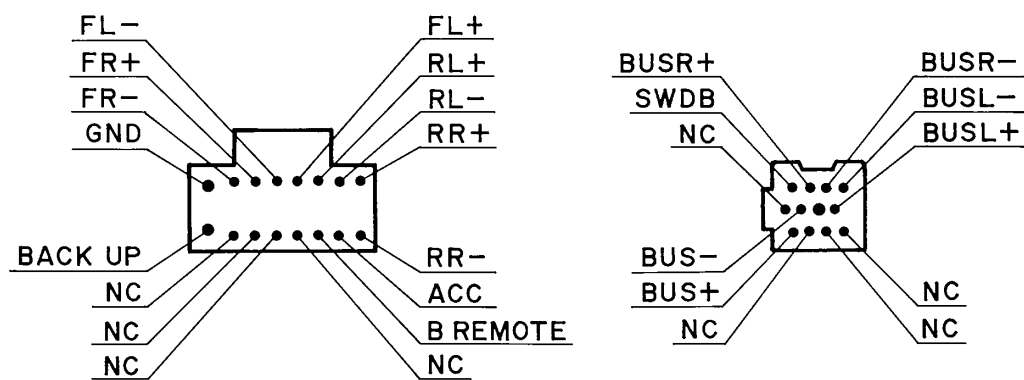


Fig. 2

### 7.1.2 CONNECTOR FUNCTION DESCRIPTION



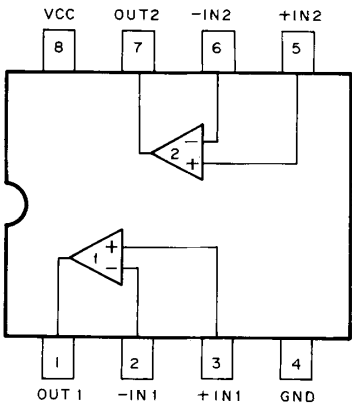
ANTENNA JACK    RCA PINJACK



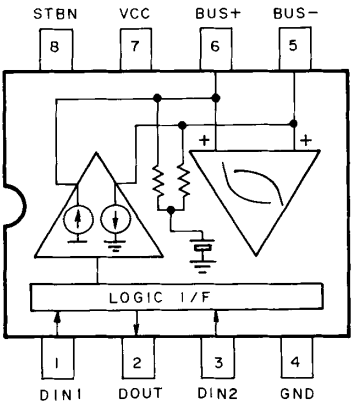
7.2 PARTS

7.2.1 IC

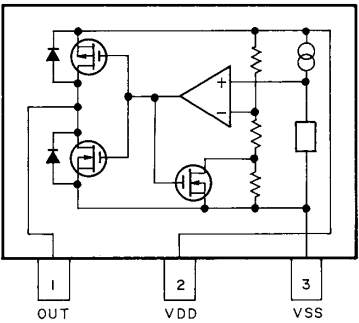
BA4560F



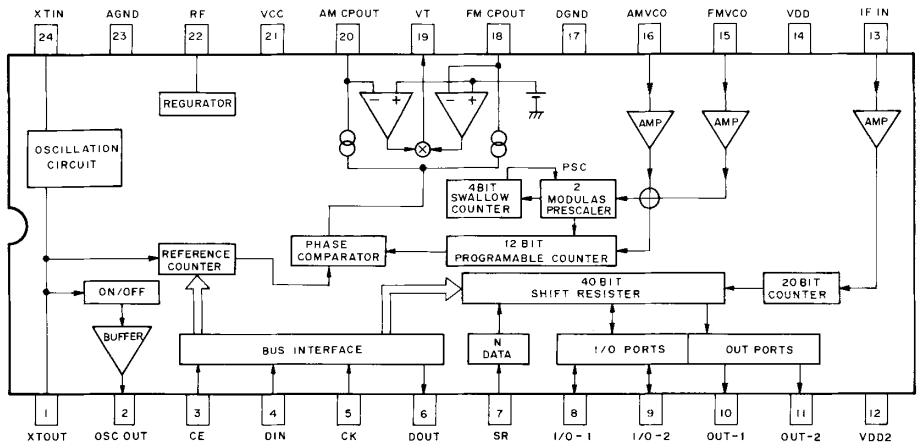
CA0008AM



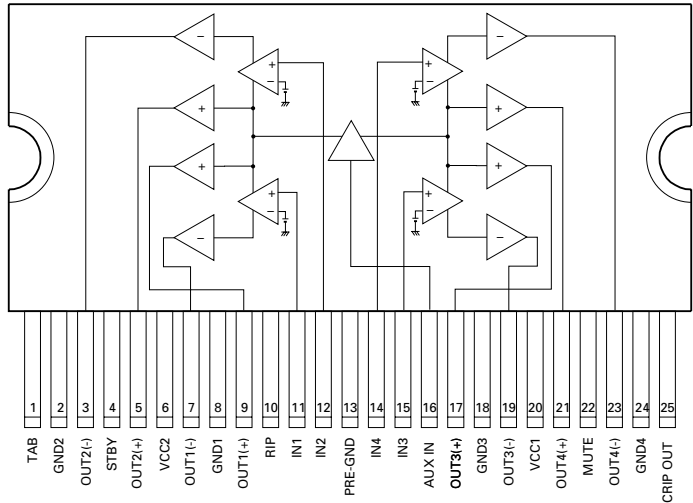
S-80834ANMP



TB2118F



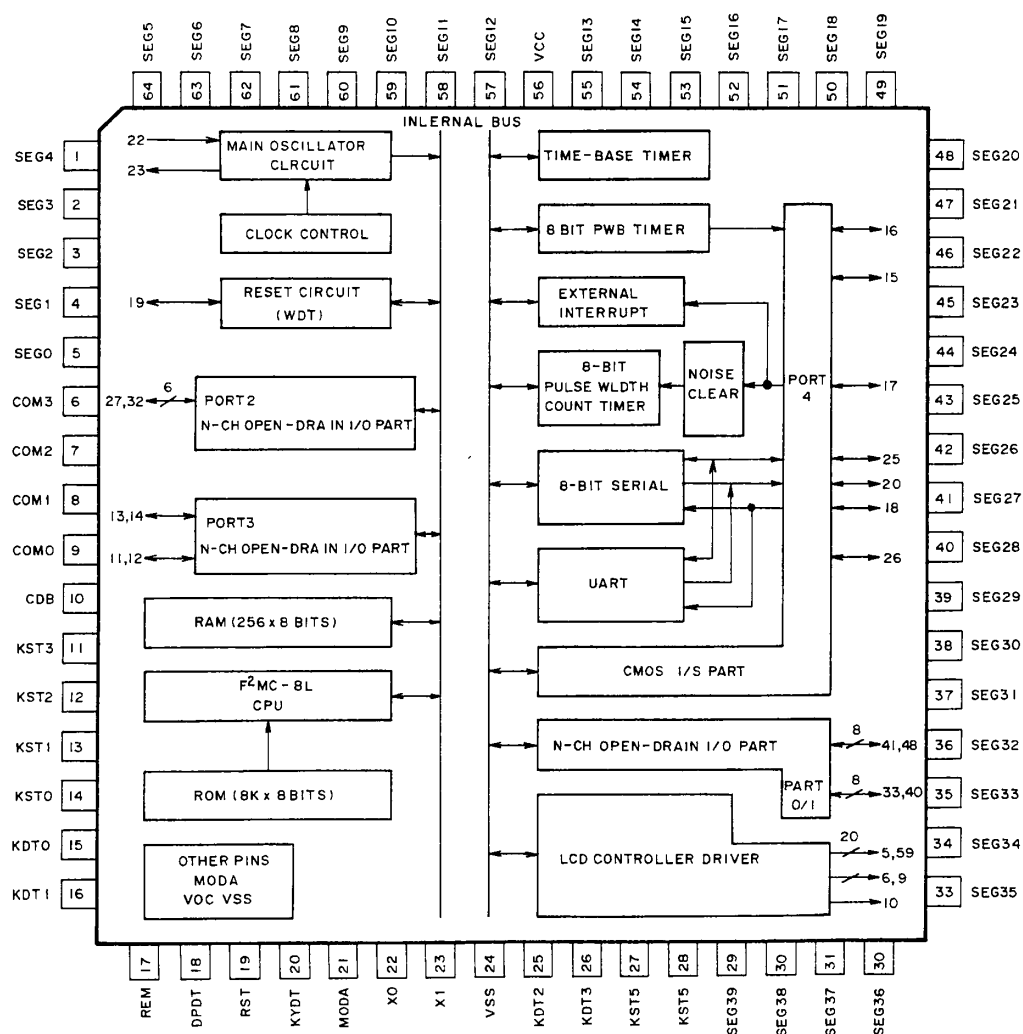
TA8277H



IC's marked by \* are MOS type.

Be careful in handling them because they are very liable to be damaged by electrostatic induction

\* PD6293A

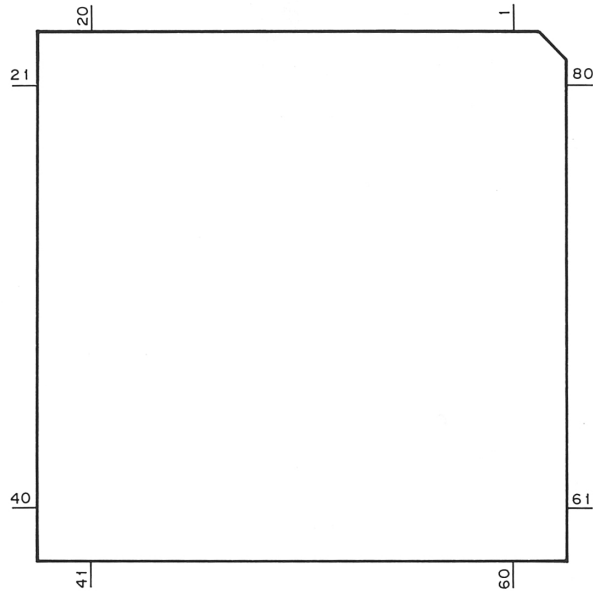


## ● Pin Functions(000874010)

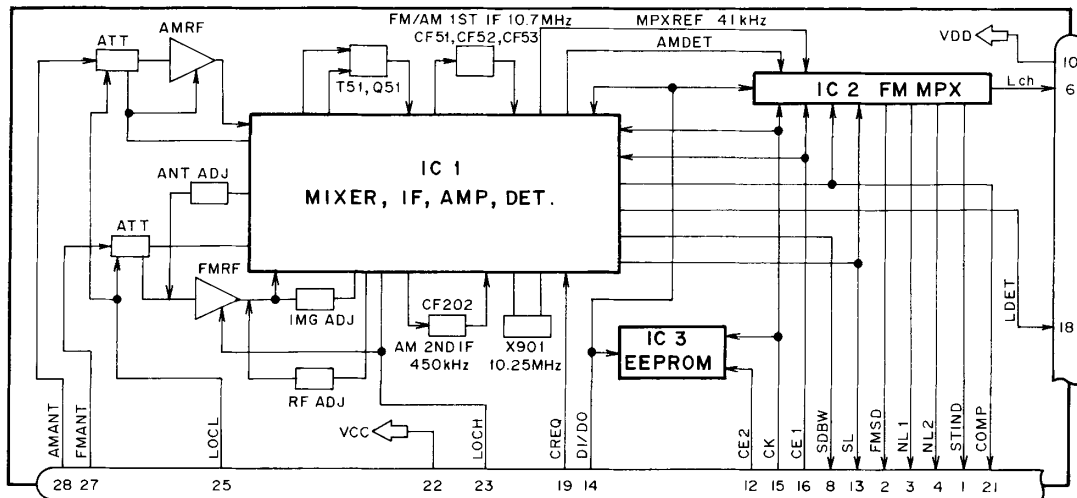
Pin No.	Pin Name	I/O	Format	Function and Operation
1	SD	I		SD signal input
2	ST	I		FM stereo input
3	ADPW	O		A/D converter power supply control output
4	AVSS			GND
5	MUTE	O	C	System mute output
6	NC			Not used
7	AVREF1	O	C	A/D converter reference voltage terminal
8	KYDT	I		Display data input
9	DPDT	O	C	Key data output
10	NC			Not used
11	TUNPDI	I		PLL IC data input
12	TUNPDO	O	C	PLL IC data output
13	TUNPCK	O	C	PLL IC clock output
14	TUNPCE	O	C	PLL IC chip enable output
15	TMUTE	O	C	Tuner mute output
16-18	NC			Not used
19	SWVDD	O	C	Grille chip enable output
20	ASENBO	O	C	Slave power supply control output
21	IPPW	O	C	Power supply control output for IP BUS interface IC
22	VST	O	C	Strobe pulse output for electronic volume
23	VCK	O	C	Clock output for electronic volume
24	VDT	O	C	data output for electronic volume
25	LOCK	O	C	Local L output
26	LOCH	O	C	Local H output
27	SYSPW	O	C	System power output
28	TUNPCE2	O	C	EEPROM chip enable output
29	BREM	O	C	System power ON/OFF output
30	CURRQ	O	C	Tuner voltage FIX output
31,32	NC			Not used
33	VSS			GND
34-39	NC			Not used
40	TAPE IN	I		TAPE pack-in detection input
41	FF/REW	I		FF/REW detection input
42	N/R	I		Cassette mechanism tape direction input
43	MOTOR	O	C	MOTOR power supply control output
44	NC		C	Not used
45	PEE	O	C	Beep tone output
46	NC			Not used
47	RDS57K	I		RDS 57kHz pulse count input
48	SDBW	I		SD input at NF
49-54	NC			Not used
55	FM/AM	O	C	FM/AM band select pin "H" : AM "L" : FM
56	TX	O	C	IP BUS data output
57	RX	I		IP BUS data input
58	NC			Not used
59	RDSLK	I		RDS LK input
60	RESET	I		Reset input
61	IDET	I		PLL lock detect input
62	RCK	I		RDS clock input
63	DSSENS	I		Grille detach sense input
64	RDT	I		RDS data input
65	ASENS	I		ACC power sense input
66	BSSENS	I		Back up power sense input
67	DRST	O	C	RDS reset output
68	VDD			Power supply
69	X2			Crystal oscillator connection pin
70	X1			Crystal oscillator connection pin
71	IC			(GND)
72	XT2			Not used
73	TESTIN	I		Test program mode input
74	AVDD			S/D converter power supply terminal
75	AVREF0	I		S/D converter reference voltage terminal
76	SL	I		Signal level input
77	NC	I		Not used
78	NL1	I		RDS noise level input 1
79	NL2DT	I		RDS noise level input 2
80	NC			Not used

Format	Meaning
C	C MOS

\* 000874010

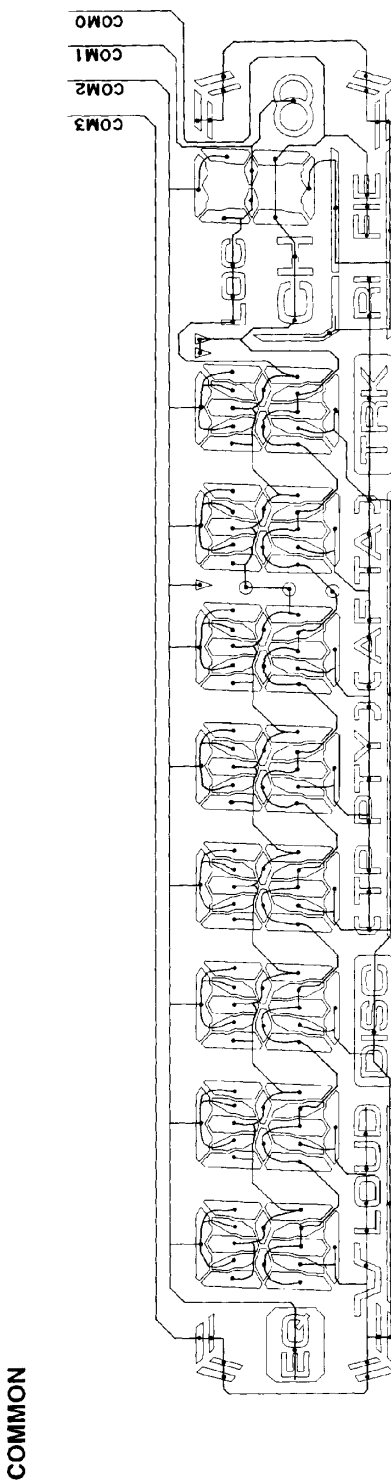
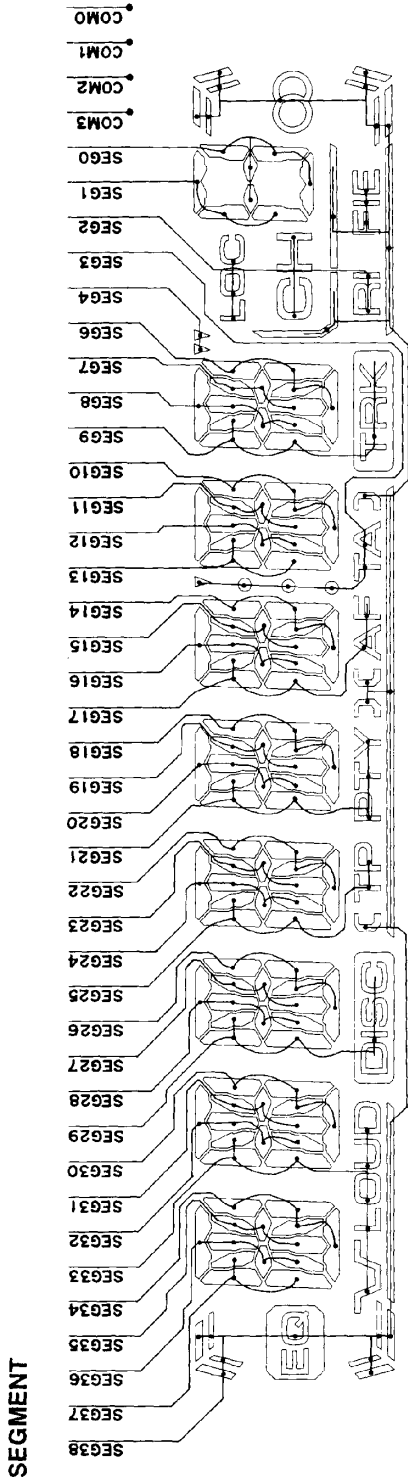


### ● FM/AM Tuner Unit



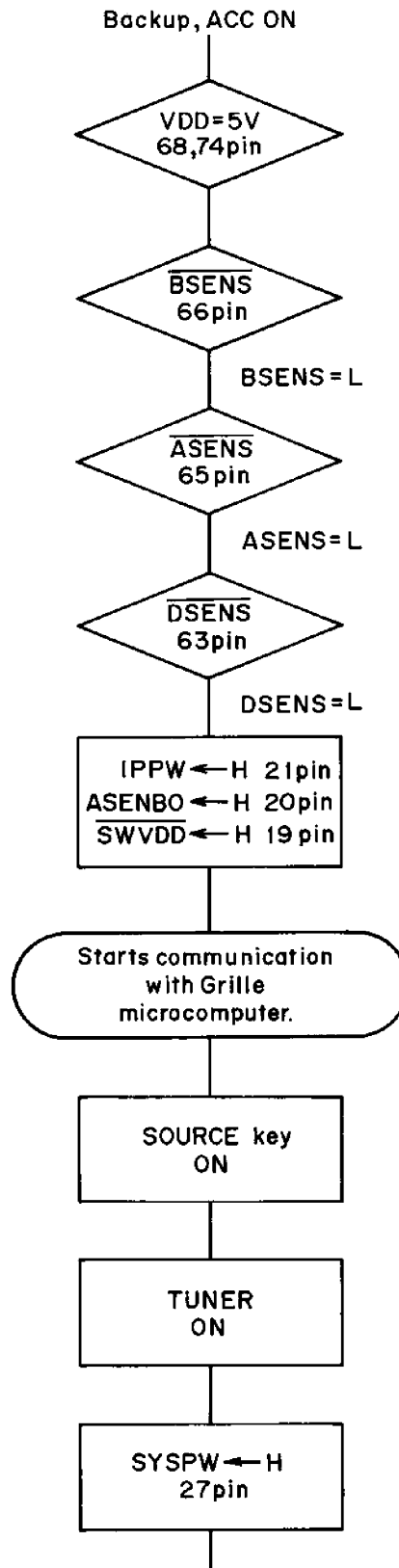
7.2.2 DISPLAY

● CZA5541





### 7.3 OPERATIONAL FLOW CHART

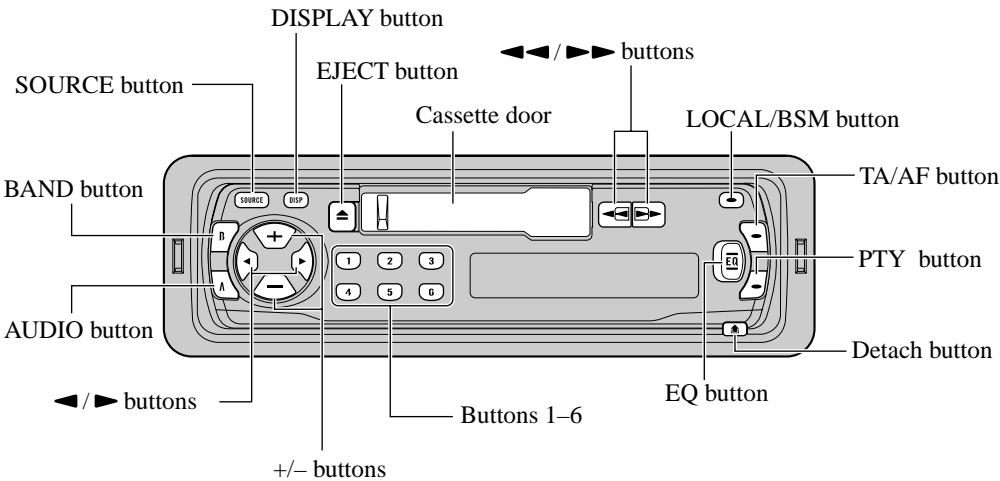


Completes power-on operation.  
(After that, proceed to each source operation.)

8. OPERATIONS AND SPECIFICATIONS

Key Finder

Head Unit



Basic Operation

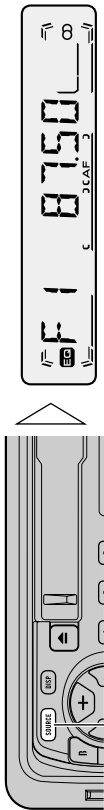
To Listen to Music

The following explains the initial operations required before you can listen to music.

Note:

- Loading a cassette in this product.

1. Select the desired source (e.g. Tuner).



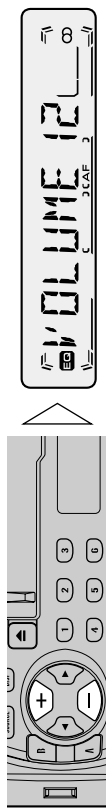
Each press changes the Source ...

Each press of the SOURCE button selects the desired source in the following order:  
Tuner → Cassette player → Multi-CD player → External Unit

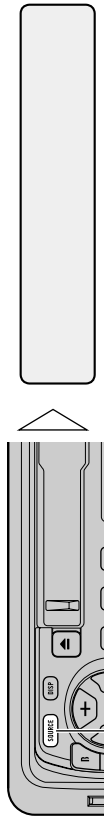
Note:

- External Unit refers to a Pioneer product (such as one available in the future) that, although incompatible as a source, enables control of basic functions by this product. Only one External Unit can be controlled by this product.
- In the following cases, the sound source will not change:
  - \* When a product corresponding to each source is not connected to this product.
  - \* When no tape is set in this product.
  - \* When no magazine is set in the Multi-CD player.
- When this product's blue/white lead is connected to the car's Auto-antenna relay control terminal, the car's Auto-antenna extends when this product's source is switched ON. To retract the antenna, switch the source OFF.

2. Raise or lower the volume.



3. Turn the source OFF.



Hold for 1 second

Basic Operation

Basic Operation of Tuner

This product's AF function can be switched ON and OFF. AF should be switched OFF for normal tuning operations.

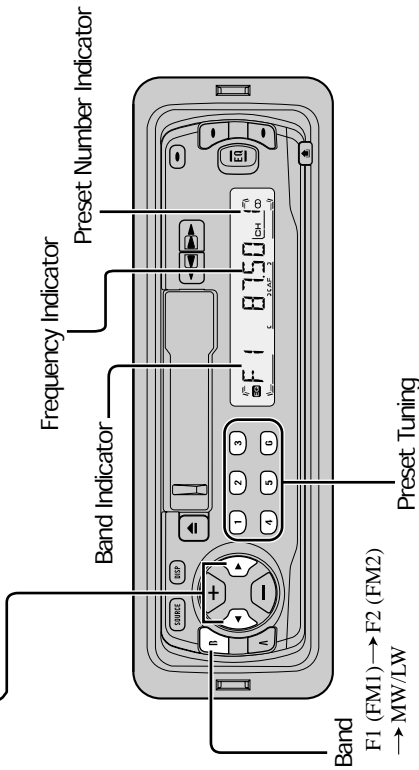
Manual and Seek Tuning

- You can select the tuning method by changing the length of time you press the ◀ / ▶ button.

Manual Tuning (step by step)	0.5 seconds or less
Seek Tuning	0.5 seconds or more

Note:

- If you continue pressing the button for longer than 0.5 seconds, you can skip broadcast stations. Seek Tuning starts as soon as you release the button.
- Stereo indicator "◯" lights when a stereo station is selected.



- You can memorize broadcast stations in buttons 1 through 6 for easy, one-touch station recall.

Preset station recall	2 seconds or less
Broadcast station preset memory	2 seconds or more

Note:

- Up to 12 FM stations (6 each in F1 (FM1) and F2 (FM2)) and 6 MW/LW stations can be stored in memory.

Basic Operation

Basic Operation of Cassette Player

Fast Forward/Rewind

- To select Fast Forward, press the button for the same direction as the direction indicator.
- To select Rewind, press the button for the opposite direction as the direction indicator.

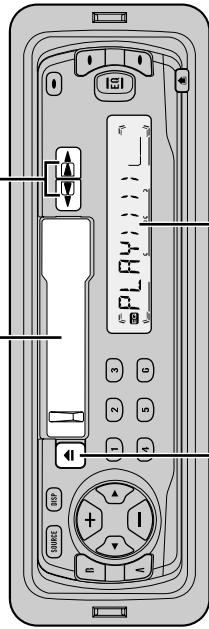
Note:

- To release Fast Forward/Rewind, lightly press the ◀◀ or ▶▶ button located on the opposite side of the one you pressed to Fast Forward or Rewind.

Direction Change

- To change the direction, press the ◀◀ and ▶▶ buttons at the same time.

Cassette Loading Slot



Eject

Note:

- The Tape function can be turned ON/OFF with the cassette tape remaining in this product.

Basic Operation of Multi-CD Player

This product can control a Multi-CD player (sold separately).

Track Search and Fast Forward/Reverse

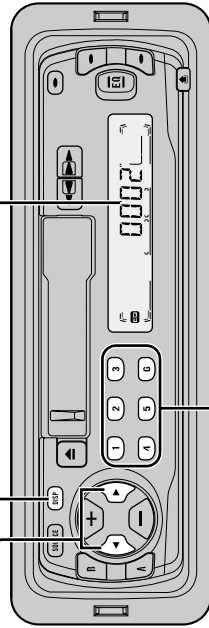
- You can select between Track Search or Fast Forward/Reverse by pressing the ◀ / ▶ button for a different length of time.

Track Search	0.5 seconds or less
Fast Forward/Reverse	Continue pressing

Switching the Display

Each press of the DISPLAY button changes the display in the following order:  
Playback mode (Play Time) → Disc and Track Number

Play Time Indicator



Disc Number Search (for 6-Disc, 12-Disc types)

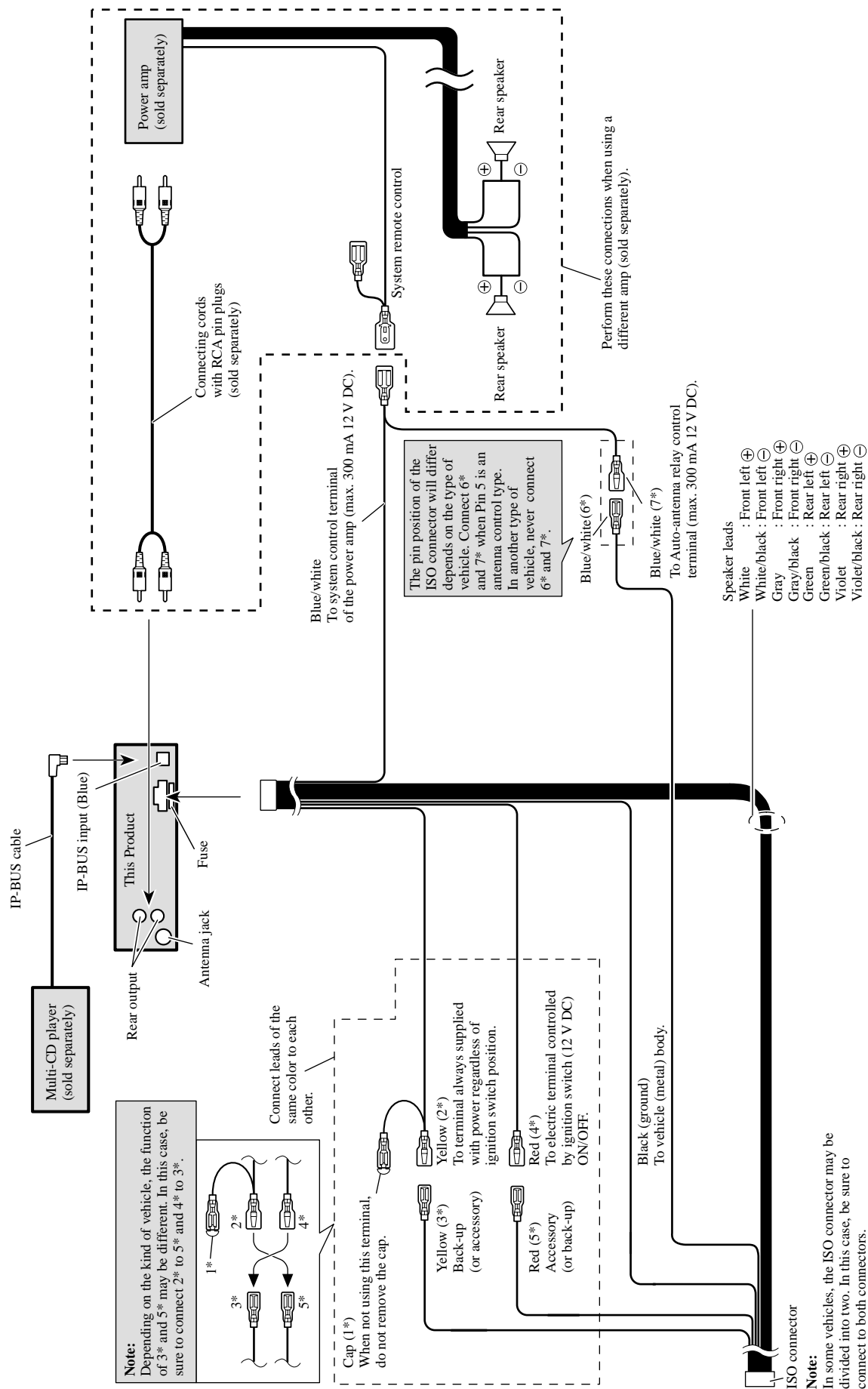
- You can select discs directly with the 1 to 6 buttons. Just press the number corresponding to the disc you want to listen to.

Note:

- When a 12-Disc Multi-CD Player is connected and you want to select disc 7 to 12, press the 1 to 6 buttons for 2 seconds.

Note:

- The Multi-CD Player may perform a preparatory operation, such as verifying the presence of a disc or reading disc information, when the power is turned ON or a new disc is selected for playback. "READY" is displayed.
- If the Multi-CD Player cannot operate properly, an error message such as "ERROR-14" is displayed. Refer to the Multi-CD Player owner's manual.
- If there are no discs in the Multi-CD Player magazine, "NO DISC" is displayed.
- You can not operate the 50-Disc Type Multi-CD Player with this product.



**Note:**  
In some vehicles, the ISO connector may be divided into two. In this case, be sure to connect to both connectors.

Specifications

General

Power source	14.4 V DC (10.8 – 15.1 V allowable)
Grounding system	Negative type
Max. current consumption	8.5 A
Dimensions	
(mounting size)	178 (W) × 50 (H) × 155 (D) mm
(front face)	188 (W) × 58 (H) × 19 (D) mm
Weight	1.2 kg
Buckup current	4.3 mA

Amplifier

Maximum power output	45 W × 4
Continuous power output	25 W × 4
	(DIN45324, +B = 14.4 V)
Load impedance	4 Ω (4 – 8 Ω allowable)
Preout maximum output level/output impedance	2.2 V / 1 kΩ
Equalizer (3 band equalizer)	
(Low)	±12 dB
(Mid)	±12 dB
(High)	±12 dB
Loudness contour	
(Low)	+3.5 dB (100 Hz), +3 dB (10 kHz)
(Mid)	+10 dB (100 Hz), +6.5 dB (10 kHz)
(High)	+11 dB (100 Hz), +11 dB (10 kHz)
	(volume: –30 dB)

Cassette player

Tape	Compact cassette tape (C-30 – C-90)
Tape speed	4.76 cm/sec. (+0.14cm/sec., -0.05cm/sec.)
Fast forward/rewinding time	Approx. 100 sec. for C-60
Wow & flutter	0.13% (WRMS)
Frequency response	30 – 16,000 Hz (±3 dB)
Stereo separation	45 dB
Signal-to-noise ratio	41 dB (IEC-A network)

FM tuner

Frequency range	87.5 – 108 MHz
Usable sensitivity	9 dBf
	(0.77 μV/75 Ω, mono, S/N: 30 dB)
50 dB quieting sensitivity	15 dBf
	(1.5 μV/75 Ω, mono)
Signal-to-noise ratio	70 dB (IEC-A network)
Distortion	0.3% (at 65 dBf, 1 kHz, stereo)
Frequency response	30 – 15,000 Hz (±3 dB)
Stereo separation	40 dB (at 65 dBf, 1 kHz)

MW tuner

Frequency range	531 – 1,602 kHz (9 kHz)
Usable sensitivity	18 μV (S/N: 20 dB)
Selectivity	50 dB (±9 kHz)

LW tuner

Frequency range	153 – 281 kHz
Usable sensitivity	30 μV (S/N: 20 dB)
Selectivity	50 dB (±9 kHz)

Note:

- Specifications and the design are subject to possible modification without notice due to improvements.